AL-GAREM'S
CLEAR PSYCHIATRY

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FOR

STUDENTS & PRACTITIONERS

By

Staff Members of the Departments

of Neuropsychiatry

Alexandria and Tanta Faculties of Medicine

Editor

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DEDICATED TO THE SOUL OF MY GREAT FATHER

Dr. Amr Al Garem

FOREWORD

Psychiatry, or to use the other and more illuminating name, psychological medicine, ought to take its place as being the most important branch of medicine, since it deals with the greatest number of patients. In saying so, one is supported by the statistical figures which proved that, for the general practitioner, about 1/3 rd. of his patients are suffering from psychological disorders. Consequently, the undergraduate medical education must give to the student an understanding of the psychological disorders equal to that which is already provided in the organic field. Psychological medicine is no longer regarded as the mysterious preserve of a few specialists; it should be within easy reach of the general practitioner, to deal with the great number of sufferers, as early as possible.

The aim of this book is to fulfil these purposes. Its title *"Clear Psychiatry"* is chosen after the famous arabic books *"Clear Grammar"* written by my uncle *"Aly Al-Garem"*. They were the first to simplify the very complicated Arabic grammar and make it actually clear. I hope that this book will have the same success in psychiatry, which is considered a puzzling branch of medicine.

To satisfy the needs of both students and practitioners, two sizes of print character are used, a large one for students giving the essential knowledge, and a small one for practitioners adding some details.

The book, though concise, covers the whole branch and is quite understandable. It is planned in two parts:

PART I which forms one third of the volume deals with general basic considerations.

PART II deals with the description of the common mental abnormalities seen in Alexandria (Egypt), according to a local statistical study.

This book is the twin of our *"Al-Garem Clear Neurology"*, and thus (1) The same order is used in discussing the topics, so that the reader will feel no difference between the psychogenic diseases and the organic ones. (2) Plain language is utilized, avoiding complex terminology. (3) Many illustrations are presented, the diagrams are

planned by us and the pictures are from our patients.

I wish to express my grateful thanks to all those who have helped me, particularly to may assistants: Drs. *Siham Rashed, Al-Fatatry, Al Dod, Ghazy, Osman, Talaat, Nadia Hafez, Al-Sheshai & Eassa.* Also to my father in law Eng. *Ibrahim Moustafa* who reviewed the manuscripts for mistakes. Last but not least to *my wife and children* whom I neglected all the time I was writing this book, and deprived them from their weekly leisure and amusement.

OMAR EL-GAREM

Alex. 1971

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PART I

GENERAL BASIC CONSIDERATIONS

INTRODUCTION

To start with, the human organism consists of two parts (Fig. 1 A): (1) the mind (psyche) (2) the body (soma); these two constitute a single indivisible whole or unity.

Definition: Psychiatry or psychological medicine is that branch of medicine which is concerned with diseases of mind as apart from body. In saying this, it is not meant, as was for long believed, that mind and body are entirely separated and independent things. On the contrary, it is now fully recognized that mind influences body, and that body influences mind; that the two are interdependent.

An example of the mind influencing the body is the fear causing tachycardia, or the grief leading to flow of tears. An example of the body influencing the mind is the hunger causing difficulty in concentration, or the fever leading to hallucinations.

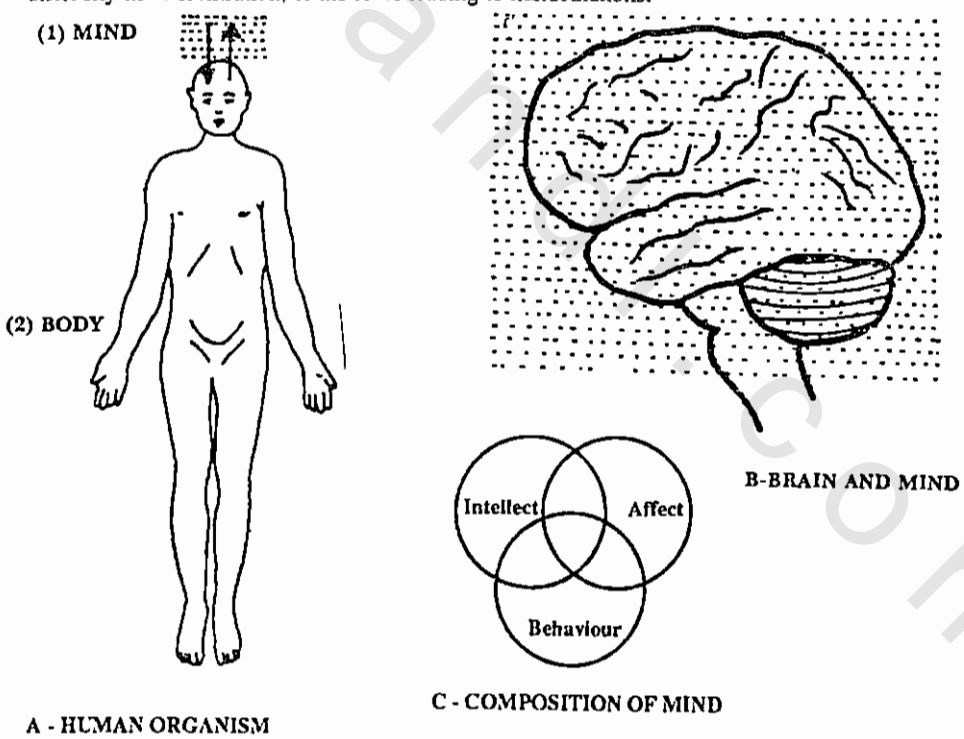


Fig. 1 (A) Human organism (the mind is represented by dots). (B) Brain and mind (the brain is the organ for mind). (C) Composition of mind (the 3 circles represent the 3 spheres of mind).

What is mind? It is the latest and most complex expression of a directing force which is inherent in every cell in the body, particularly in the higher cerebral neurons.

Where is the mind? We recognize the brain as the seat (organ) of the mind (Fig. 1 B). Thus mind or mentation is the activity of an intact cerebrum. However the functions of mind are dependent, not upon the brain only, but upon the whole body and the harmonious interaction of all its systems (nervous, cardiovascular, endocrinal, etc).

Composition of the mind: The mind is composed of three spheres which represent the aspects of mental functioning (Fig. 1 C).

(1) Intellect (cognition): It includes the processes of thought, orientation, memory, attention and concentration, general knowledge (learning capacity), intelligence (problem solving), insight and judgement.

(2) Affect (mood): It denotes the emotional state or condition. It is the subject's inner feeling or experience at a given moment.

(3) Behaviour (cognation): It is the conduct of the individual.

Historical review: The progress in psychiatry has been extremely slow because of many obstacles. One of the great difficulties, and in fact one which has still to be faced in many instances, is public opinion. Patients themselves, and also their relatives, feel that there is a stigma attached to mental diseases, and that if such a disease occurs, it must be hidden and not declared at all costs, even at the expense of the patient's life. Admission to a mental hospital, particularly as a certified patient, was looked upon as going to prison or even worse. The public opinion about these diseases is that they are incurable. It was believed that once a patient was hospitalized he would never be discharged. Even those patients who were lucky to leave the hospital, the stigma of having been there still remains attached to them. Because of that, their chances of obtaining a post or taking up an active social life or getting married were remote.

Treatment of mental diseases passed through several stages. Formerly, it was considered that patients suffering from such disease were possessed by devils and the appropriate treatment was punishment (beating, burning), so that the devils will leave the body. Later, mentally ill persons were incarcerated in cells where they existed like animals until they died. Even today ignorant people believe that patients in mental hospitals are neglected and receive harsh treatment.

Years ago, people began to interest themselves in the insane. We feel proud to say that the Arabs were the first to take care of the mentally ill

patients. Early in the 8th. century, a special hospital called 'Bimaristan' was built in Bagdad to receive these patients, who were looked after by a doctor and kept there until they became fit for discharge. Since then the *hospitals* for the treatment of mental patients have gradually improved, and now the modern mental hospital has villas, gardens, amusements and workshops. In addition, *outpatient clinics* are founded where (1) patients in the early stages of mental illness can receive treatment and so avoid hospitalization (2) patients discharged from mental hospitals come for observation so that a recurrence of their illness may be prevented.

Teaching of psychiatry: Now the study of psychological medicine is founded on a scientific basis, and the systematic teaching of this important branch of medicine is included in the curriculum of both medical students and nurses.

Incidence of mental abnormalities: Diseases of the mind are associated with impairment of individual efficiency, domestic unhappiness, and troubles to the community much more than diseases of the body. This being so, it is very desirable to know their incidence.

The number of individuals suffering from mental ill-health often comes as a surprise. About 3 per 1000 of the population suffer from major mental disorders necessitating admission to mental hospitals. There are no reliable figures available as to the number suffering from minor mental disorders, of insufficient severity to necessitate hospitalization, but nonetheless are potent causes of personal misery and social inefficiency. There can be no doubt, however, that this group is an enormous one. For a general practitioner these minor disorders form about 30% of all his patients.

It is stated that, of patients coming to see a general practitioner, 1/3rd. have pure organic diseases, 1/3rd. have organic diseases complicated by psychogenic disturbances, and 1/3rd. have pure psychogenic diseases.

Recently there has been a relative slow increase in mental diseases, which can not be explained on the basis of population growth and improved hospital facilities. Such increase is due to (1) The complexity, stress and competition of modern life. (2) The recent urbanization of the society, with the change of the calm village and farm work to the crowded noisy city and factories.

Early recognition of psychiatric disorders and positive and negative approaches (angles) in diagnosis: The presenting symptoms in many psychiatric diseases are of a physical (somatic) kind e.g. headache, dyspepsia, palpitation, etc. This may make differential diagnosis from

physical diseases a matter of difficulty. Consequently many psychiatric cases are not recognized for what they are, or their recognition is unduely delayed. Many doctors (who have no psychiatric background) diagnose psychiatric disorders by exclusion i.e. they determine to rule out any possibility of a physical disease beyond the last shadow of doubt. So they will ask for many investigations (x-ray, E.C.G. etc.) to be done, and they will try many medicines in vain. This may ruin the patients permanently both in pocket (money) and confidence (in doctor and self-confidence). So this negative approach to the diagnosis is quite wrong. A good doctor should, simultaneously from the start, follow a positive approach in addition to the negative one and thus seek for a positive evidence of psychiatric disorder. Therefore (1) A thorough physical examination is essential to exclude an organic disease (negative approach or angle). (2) A thorough assessment of the mental state of the patient is also essential to seek for positive evidence of psychiatric disorder (positive approach or angle). This latter approach can usually be achieved, without undue difficulty, by taking a careful history, with essential back ground of psychiatric knowledge.

An example is the patient complaining of palpitation simulating heart disease. On taking the history the complaint is found to start after witnessing a terrifying road accident. Such emotional shock forms the positive evidence a psychiatric disorder.

Psychological aspect of the patient: The recognition of the psychological aspect in every patient (suffering from whatever disease) is very essential. The patient goes to his doctor because he has some discomfort and wants to be comfortable again. The doctor, on the other hand, wants to discover the pathological condition and control it, if he can. The good doctor, therefore, has to learn to achieve two objects at the same time: (1) the diagnosis and treatment of the patient's illness on the one hand (2) to keep him comfortable on the other, (even if his case is incurable as in advanced cancer). We speak of keeping the patient comfortable in the broadest possible sense to include the mind as well as the body. This is an art which the doctor must teach himself. In the exercise of this art he to convince the patient of his interest in his case; he must make him feel that something significant is being done for him all the time. The simplest way to do this is to be actually interested in the case, giving him listening ears eyes during the examination (a look at your watch may loosen the rapport required). To all patients the interest of the doctor is more potent than his knowledge and skill. The attention of all medical students and practitioners is forcibly which the student must teach himself.

CLASSIFICATION OF MENTAL ABNORMALITY (DIAGNOSTIC APPROACH)

Classification in psychiatry is not simple as shown in the international classification of diseases (ICD-10) written on p.11 For practical purposes we begin by dividing cases of mental abnormality into three main categories (Fig. 2).

(1) Mental disorder.

(2) Mental decay (dementia).

(3) Mental defect (amentia, subnormality, retardation).

It is true that these categories sometimes overlap. Cases of mental disorder may subsequently undergo decay; cases of defect and decay may be accompanied by disorder. Nevertheless, in practice there is rarely difficulty in deciding whether the main abnormality of a patient is one of disorder, decay or defect.

Differential diagnosis: In mental disorder there is a qualitative disturbance of mental functions, while in mental decay and mental defect the disturbance is a quantitative one (see Fig. 4 p.8 which shows shrinkage in size).

To assess the mental functions quantitatively we take the intellectual ones as an indicator. In mental decay and mental defect there is low intelligence as shown by (1) clinical examination (see p. 34) and (2) measurement tests or psychometry (see chapter of mental defect).

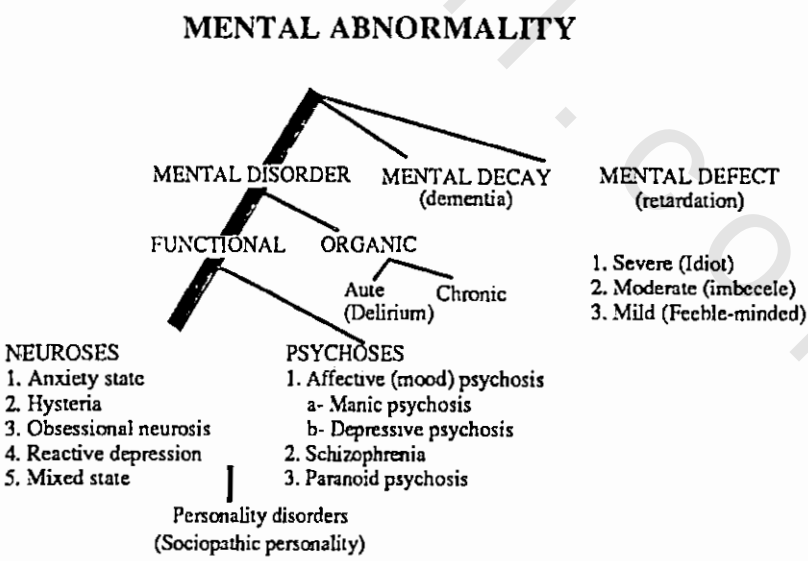


Fig. 2 Classification of mental abnormality.

I – MENTAL DISORDER

The term mental disorder is applied to cases in which the outstanding feature is a disturbance of the functions of mind., This may arise in two ways.

(A) In one there are no organic changes in the brain and the disorder appears to be entirely functional. It is then termed *primary or functional mental disorder*. resulting from hereditary or aquired (environmental) factors.

(B) In the other the mental disorder is the result of some organic or pathological changes in the brain. It is then termed *secondary or organic mental disorder*.

However, recently in primary mental disorder, biological changes are found (see p. 12).

Differential diagnosis: In organic mental disorder (1) Mental examination will show impairment of intellectual functions (i.e. orientation, memory, attention and concentration, general knowledge (learning capacity) and judgement. (2) Physical examination will usually show signs of organic disease of the nervous system (e.g. tremors, reflex changes, etc.). (3) Psychometry will show positive organicity tests (such as impaired recent memory and the ability to perceive visual pattern relationships).

(A) PRIMARY MENTAL DISORDERS

It is convenient to divide the primary mental disorders into two subgroups:

(1) The minor disorders or the *neuroses*.

(2) The major disorders or the *psychoses*.

Neuroses are much commoner than psychoses (about 3:1).

Differential diagnosis: The distinction between the neuroses and the psychoses in by no means always clear and some intermediate or transitional cases do occur. There are, however, sufficiently distinctive differences between well marked neuroses and psychoses to justify their separation, as shown in the following table:

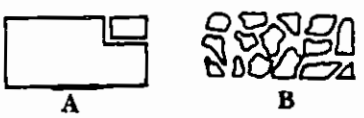


Fig. 3 Derangement of personality (mind)
(A) Mild in a neurosis
(B) Severe in a psychosis.

	Neuroses	*Psychoses*
(1) Insight i.e. awareness of the illness	Present (usually)	Absent (usually)
(2) Awareness of the surroundings	Present and living in touch with reality	Absent and living in a world of fantasy (usually)
(3) Personality (mind) Fig. 3	Slightly deranged without delusions and hallucinations	Seriously deranged with delusions and hallucinations (usually)
(4) Behaviour	Slightly disturbed without need for hospitalization, although patient may be invalid (unable to work)	Seriously disturbed and needs certification and detention in a mental hospital (usually)

In addition to the points mentioned in the table, there are psychological tests which help in differentiating neurosis from psychosis:

Classification of primary mental disorders: Whether the disorder is a neurosis or a psychosis, it usually consists of an abnormal reaction of the personality to some mental experience, (stress), and so we use the term 'reaction type' instead of referring to mental disease.

The reaction type is essentially dependent upon the type of the personality of the sufferer, and since no two personalities are alike, it follows that there are many modes of reaction. Inspite of these great individual differences, however, abnormal modes (patterns) of reaction like the normal, tend to follow certain general lines. These patterns classify cases of primary disorders into clinical varieties or reaction types.

The reaction type is essentially dependent upon the type of the personality.

In neurosis the reaction is often understandable as an exaggeration of the normal response to stress (leading to quantitative, but not to qualitative changes); in psychosis this does not occur.

(1) **Neuroses:** Persons who react to the mental experience by a neurosis do so in four chief modes: fear, escape, compulsion and grief. We can, therefore, describe four chief reaction types, and a fifth mixed one.

a) Anxiety state (fear disorder).

b) Hysteria (escape disorder).

c) Obsessional state (compulsive disorder).

d) Reactive depression (grief disorder).

e) Mixed state: in which the type of reaction is not pure, but is a mixture of the previous states e.g. anxiety with depression.

(2) Psychoses: Persons who react to the mental experience by a psychosis do so in three chief modes:

a) Affective (mood) disorder: which is characterized by a disorder of affect or mood (Fig. 4 a). There are two groups:

i - Manic disorder. There is excessive cheerfulness.

ii - Depressive disorder. There is excessive sadness.

b) Schizophrenic disorder: (Schizophrenia = Split mind): which is characterized by: i - slow steady deterioration of the entire mind (intellect, affect, and behaviour) which do not act in cooperation leading to splitting (fragmentation) of the personality (mind). ii - increasing withdrawal of interest from the environment . iii - occurring usually at the period of adolescence (Fig. 4 b).

c) Paranoid disorder (Delusional psychosis) which is characterized by a partial disorder of the intellect affecting judgement, and the dominating symptoms are delusions (the other intellectual functions show no changes) (Fig. 4 c).

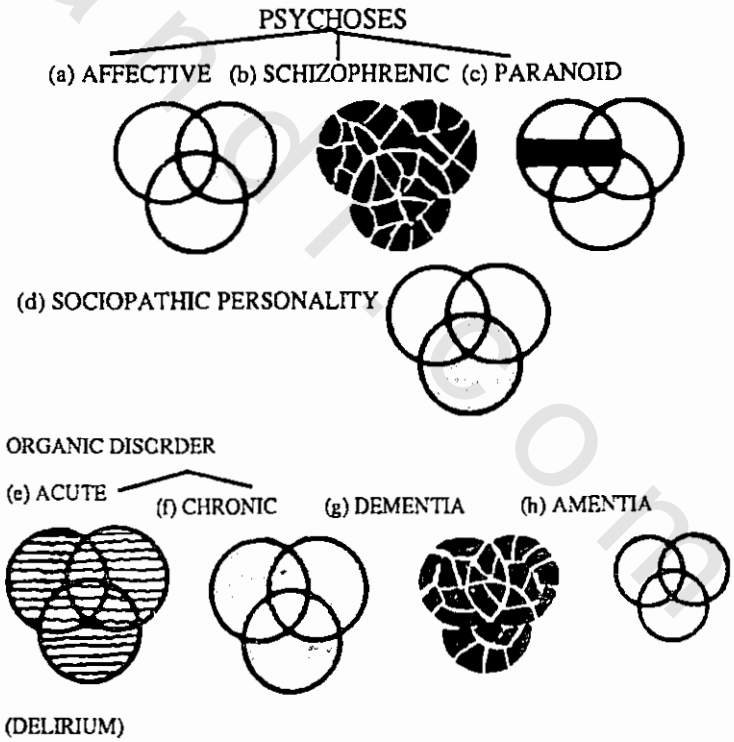


Fig. 4 shows the changes in the three spheres of mind occurring in psychoses, sociopathic personality, organic disorder, dementia and amentia.

Observe

i - The wavy lines of delirium denotes disturbed consciousness.

ii - The smaller size of dementia and amentia denotes the quantitative mental changes.

(3) Personality Disorders: These include deeply ingrained maladaptive patterns of behaviour, generally recognizable from early life and continuing throughout, although often becoming less in middle or old age.

a) Sociopathic personality (Fig. 4 d).

b) Sexual disorders and deviations (perversions).

c) Drug addiction.

(B) SECONDARY (ORGANIC) MENTAL DISORDERS

This group differs from the primary disorders in that it is not the result of inherent and psychosocial causes, but is the result of some pathological or organic changes in the brain producing disturbance in the functions of mind.

The organic disorders are classified according to their etiology or pathology. It is convenient to make a rough division into two subgroups, the acute and the chronic.

(1) **Acute organic disorder:** a) *Etiology*: it is the result of a temporary infective or toxic process (e.g. any acute infective illness as meningitis or typhoid; or drug intoxication as alcohol drinking b) *Pathology:* there is pathological affection of the brain substance which is reversible with no permanent changes. Such changes are diffuse, affecting i - the cerebral cortex (and related subcortical structures) which is responsible for mental functions ii - the brain stem with its central reticular formation (alerting system) which is responsible for consciousness (Fig. 5). *c) Clinically:* i - There are manifestations in all the mental functions (intellect, affect and behaviour) and ii - The most characteristic finding is disturbed consciousness leading to delirium (delirious state) (Fig. 4 e). iii - It runs a short course.

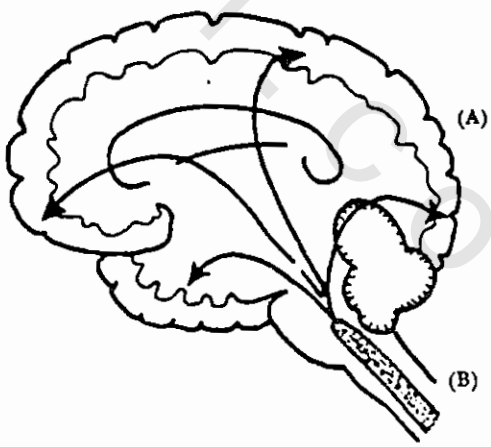


Fig. 5 (A) Cerebral cortex.
(B) Central reticular formation

(2) **Chronic organic disorder:** a) *Etiology*: the causes are subdivided into two groups. i - Primary or intrinsic

group (abiotrophy) as seen in senile and presenile psychoses ii - Secondary or extrinsic group which is due to acquired various causes e.g. cerebral arteriosclerosis, neurosyphilis, brain tumour, head injury, etc. b) *Pathology:* there are irreversible permanent changes of the brain (usually a progressive degeneration). c) *Clinically*: there are manifestations in the three spheres of mind (intellect, affect and behaviour) which occur with relatively clear consciousness (i.e. no delirious state) (Fig. 4 f). iii - It has a chronic or progressive course.

II – MENTAL DECAY (DEMENTIA)

Definition: The term dementia is applied to cases in which there is permanent degeneration of mind (i.e. irreversible deterioration of mental functions).

Etiology: The cause are the same as those mentioned under chronic organic disorders Therefore these causes result first in mental disorder and later, if the cause can not be corrected and the condition persists, dementia results from irreversible damage of the brain cells.

Clinical picture: The dementia manifests itself by severe irreversible deterioration of all the mental functions (intellect, affect and behaviour) (Fig. 4 g).

III – MENTAL DEFECT (AMENTIA, SUBNORMALITY, RETARDATION)

Definition Mental deficiency denotes a condition of subnormal development of the mind existing from birth or before the age of 17 years (the age at which mental and physical maturity occurs). It leads to incapacity for independent adaptation to demands of society, and is characterized mainly by low intelligence (Fig. 4 h).

Mental deficiency (amentia) is distinct from dementia in that the mind has never been normal (has failed to reach a normal stage of development). Dementia is like an individual who was rich and became poor, while amentia (deficiency) is like an individual who is poor all his life (Fig. 6)

Etiology: There are two groups (1) Primary or intrinsic group resulting from genetic or hereditary causes (2) Secondary or extrinsic group resulting from acquired causes a) before birth (e.g infections) b) at birth (e g birth trauma) c) after birth (e g endocrinal or nutritional disorder)

Clinical picture. The following grades are described

(1) Severe retardation: (Idiocy).
(2) Moderate retardation (Imbecility).
(3) Mild retardation (Feeble - mindedness).

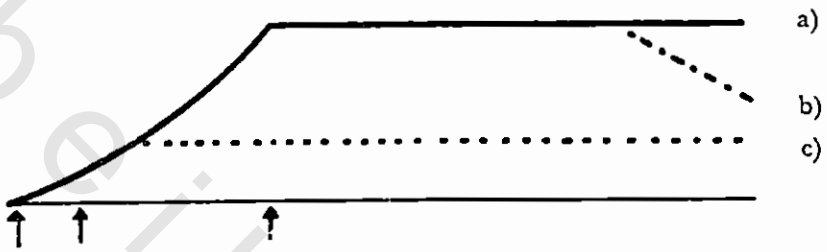


Fig. 6 Development of the mind a) normal individual b) mental decay (dementia) c) mental deficiency (subnormality)

IV – OTHER MENTAL ABNORMALITIES

(1) Child psychiatry.
(2) Psychiatric disorders in old age.
(3) Miscellaneous disorders:
   a) Psychiatric disorders related to child-bearing.
   b) Somatoform disorders and Psychosomatic (psychophysiological) disorders.
   c) Hypochondriasis.
   d) Unreatity states e) Excitement f) Stupor g) Suicide.

ICD – 10

The International Classification of Diseases is the official classification used in Britain. A multiaxial diagnostic schema is included. Each condition will be identified by an alphanumeric code. The section on psychiatric disorders has the following main headings:

Organic, including symptomatic mental disorders.

Mental and behaviour disorders due to psychoactive and other substance use.

Schizophrenia, schizotypal and delusional disorders.

Mood (affective) disorders.

Neurotic, stress-related and somatoform disorders.

Behavioural syndromes and mental disorders associated with physiological dysfunction.

Disorders of adult personality and behaviour.

Disorders of psychological development.

Behavioural and emotional disorders with onset usually occurring in childhood or adolescence.

Unspecified mental disorder.

Some conditions relevant to psychiatry are classified in other sections of the ICD, e.g. suicide and self-inflicted injury or poisoning.

ETIOLOGY OF PRIMARY MENTAL DISORDERS

In this group of cases the mental disorder occurs in the absence of any demonstrable pathological process in the brain. It is then regarded as the result of an abnormal functioning of the mind (psyche) and such cases are termed primary or functional mental disorders.

The factors responsible for the cause of a primary mental disorder are divided into two groups:

(1) Hereditary (predisopsing) factor (inherited predisposition).

(2) Acquired (precipitating or maintaining) factors: a) Psychosocial factors (environmental stress). b) Physical factors.

Recently biological changes are found (1) Disturbance of brain biochemistry (functional imbalance of the neurotransmitter systems). (2) Structural or organic changes in some cases of psychoses (e.g. schizophrenia and depression).

I. HEREDITARY (PREDISPOSING) FACTOR: Too much stress is often laid on heredity as a causal agent in mental disorders. Undoubtedly, investigation of the families of patients suffering from such diseases shows that other members of the family have suffered from similar diseases. These may be present, not only in other members of their own generation, but also in members of previous ones (their ancestors). But even with a positive history of heredity, other factors (acquired) are often necessary, as may be seen in a family with identical (uniovular) twins when one twin becomes ill while the other escapes, although both have the same heredity.

Application of law of Mendle (Fig. 7): Hereditary characters (e.g.tallness, shortness, etc.) are independent units (unit characters or 'genes'), which maintain their independence from generation to generation. Certain unit characters are dominant over others e.g. tallness over shortness. This means that, when two unit characters respectively 'dominant' and 'recessive' to each other are present together in a zygote (the product of the fusion of the male and female germ cells), the resulting mature organism will be tall. That is to say the character for tallness prevails and that for shortness remains in abeyance (dormant).

This is the so called *'law of dominance'* which may also be explained in the following way. When two organisms of different unit characters (e.g. tallness and shortness) are crossed, offspring result, and these are all apparently alike, and have the character which is dominant in one of the parents (i.e. tallness).

The *'law of segregation'* adds that, if these offspring (of the second generation) are bred together, their offspring of the third generation will consist of 50% which are like their parents, 25% like their male grand parent (i.e. of pure stock), and 25% like their female grand parent (i.e. pure stock).

Fig. 7: The law of Mendel

(1) First generation of two organisms (a male and a female) with different unit characters (tallness and shortness) (1)

(2) Second generation showing the law of dominance (2)

(3) Third generation showing the law of segregation. (3)

The unit character in mental disorders: In the case of mental disorders there is the question of what constitutes a unit character. Some use the word *'neuropathy'* or *'neuropathic diathesis'* which means inherited predisposition to mental disorder. It is believed, luckly enough, that 'neuropathy' is recessive to 'normal'. Thus on applying the law of Mendel (Fig. 7) 'neuropathy' will take the place of shortness and 'normal' will take the place of tallness..

The carriers of unit characters (genes) are the chromosomes. Each chromosome contains many units (genes). The nucleus of every cell in the body contains 23 pairs of chromosomes, 22 of them are called autosomes, and the 23rd, is the sex chromosome. The latter differs in both sexes, in the female it possesses two x-chromosomes (i.e. x - x) while in the male it possesses one x and a smaller y-chromosome (i.e. x-y).

Unit characters are (1) sex-linked when found only in association with the extra X-chromosome of the female. (2) sex-limited when the character, although present in both

sexes, is allowed to appear in one sex only. The best example is haemophilia (blood disease) which is carried by the female and appears only in the male.

Mendelian law and psychiatric diseases: When Mendelian studies are made in reference to the individual psychiatric diseases, instead of 'neuropathy', some facts emerge: (1) In manic-depressive psychosis the percentage incidence of the disorder among the offspring (children) of manic-depressive parents is higher than would be expected if the manic-depressive factor was simple recessive, (2) In schizophrenic psychosis the percentage incidence among the siblings (brothers and sisters) of schizophrenic patients is lower than would be expected if the schizophrenic factor was simple recessive.

Types of genes (small and large) and their roles in heredity: A distinction must, however, be drawn between the relative roles in heredity exerted by a) many genes of small but additive effect and b) specific genes of large effect.

(1) The many genes of small but additive effect are responsible for varieties in the personality (among which neuropathic diathesis is included), where the normal and the abnormal fade imperceptibly into one another. The resultant individual may or may not be predisposed to mental disorders.

(2) The specific genes of the large effect are responsible for psychiatric diseases (as manic-depressive and schizophrenic psychoses), where there is a hard and fast distinction between the normal and abnormal.

(3) The specific genes of the large effect (e.g. that resulting in manic-depressive psychosis) may be combined in the same individual with many genes of small but additive effect. The resultant individual may be extremely stable, or with neuropathic diathesis. Manic-depressive psychosis can affect both types of individuals.

The *importance of the hereditary factor in mental disorder:* It lies in providing a predisposition diathesis, which may or may not be made manifest, depending upon the precipitating acquired factors (both psychosocial and physical).

The inherited predisposition may be dormant for many generations and then shows itself again. This is seen when a member of the family suffers from mental disorder after a lapse of several generations without any member suffering from such disorder.

Similar and dissimilar heredity: When the parent and offspring have the same disorder (e.g. schizophrenia)) the heredity is said to be similar. If the types are different (e.g. schizophrenia in the parent and manic-depressive psychosis in the offspring) it is said to be dissimilar heredity.

Heredity and types of mental disorders: Manic-depressive psychosis shows the highest hereditary transmission, whilst in schizophrenia and sociopathic personality it is also fairly high.

In the majority of cases of mental disorders the inheritance appears to take the form of a general rather than a specific predisposition to mental disease. It is then appropriately termed a 'neuropathic diathesis'.

Individuals with 'neuropathic diathesis': (1) In a minority of such individuals their

personality appears to be normal, with no noticeable mental peculiarity, until exposed to some precipitating factor, when a breakdown results. (2) In the majority of such individuals their personality appears to be abnormal, with peculiarities which are sufficiently pronounced to attract attention. These peculiarities are of several kinds and will be discussed under the personality in psychiatry (p. 28). One of the commonest is the type called 'mental instability'; such inadequate personality is the soil from which most case of neuroses and psychoses arise.

II – ACQUIRED FACTORS (PRECIPITATING OR MAINTAINING AND PREDISPOSING)

(A) Psychosocial factors (Environmental stress):

The psycholcgical factor is an 'intrapsychic' stress; the social factors is an 'interpersonal' stress.

(1) During Childhood (Morbid family environment): Apart from the direct hereditary transmission of mental disorder from parents to children, it is evident that children brought up in unhealthy environment (e.g. one of the parents is nervous) lack emotional security and become anxious and moody. This may lead to the following: a) The children may show behaviour disorder in their earlier days. b) The children may become more prone in later life to mental disorders. That is to say, this unhealthy environment, which may not make itself felt at the time, does undoubtedly leave its mark and prepare the way for breakdown, when the stresses of adult life have to be faced.

Examples of unhealthy environment during childhood: (1) Unhappy marriage where there is continual friction between parents. (2) Broken homes by death, divorce or separation leading to deprivation of one parent, which is very serious particularly if the mother is the absent one It is usually easier for the child to adjust to the death of one of his parents than to divorce, and to divorce that to continual friction between parents. (3) Faulty upbringing (morbid parent - child relationship): a) Spoiling and babying, especially for the single child, the eldest or youngest, or the only boy among girls lead to sociopathy; over protection and over anxiety lead to dependency, b) Unwanted child and rejection lead to insecurity; over domineering or aggression of one of the parents leads to tension laden relationship. c) Inconstancy in treatment has also a bad effect e.g. punishing on doing a mistake and not punishing on repeating the same mistake makes the child bewildered.

(2) During adulthood :

a) External stress (conscious problem) : In many cases of mental disorder there is a history of some precipitating factor in the form of a painful experience, such as domestic quarrel, dissatisfaction with occupation, thwarted (unfulfilled) ambition, school examinations, business failure, financial loss, sexual maladjustment, death of a relative, emigration, air-raids during the war, etc.

b) Internal stress (unconscious mental conflict): In other cases, no such external stress (precipitating factor) is apparent, and the disorder seems to arise spontaneously (out of the blue). However psychological investigation will often reveal as state of conflict and war between two opposing motives., Probably the commonest is one between the innate motives (e.g. sex motive) and the learned motives concerned with ideals of behaviour in the society (the herd motive and its traditions).

Broadly speaking, the normal individual must make an efficient adaptation to his environment. If he can not do this, the mind is prone to undergo a disorder.

(B) Physical factors: By physical factors are here meant the physical diseases that are studied in general medicine such as infections, intoxications (endogenous or exogenous), disorders of circulation, nutrition, metabolism, endocrines and trauma (including surgical operations).

Child-bearing (pregnancy, delivery and lactation), puberty and climacteric periods are considered among physical factors.

Any physical factor that lowers the general well being of the individual will facilitate the development of mental disorder in a susceptible subject, and hence arises the importance of physical factors as a precipitating or contributory cause. This agrees with the proverb which says 'the healthy min d is in a healthy body' It also agrees with the man in the street who believes that 'worries get a hold' on those who are physically run down in a way they would not otherwise.

For example a psychic shock (e.g. due to financial loss) might lead to a mental breakdown an an individual with influenza; while he can resist such shock if he is in good health.

To conclude, we may say that for a mental disorder (D) to occur, it needs two factors, first the hereditary factor (H), and second the acquired factor (A). Thus the following equation denotes what we mean:

H + A = D e.g. 50 + 50 = 100

When the hereditary factor is marked (e.g. 80), a comparatively trivial acquired factor (e.g. 20) which gives rise to either a psychosocial or physical stress, suffices to precipitate a breakdown i.e. 80 + 20 = 100

On the other hand, when the hereditary factor is comparatively slight (e.g. 5), a much greater acquired factor(e.g.95) is needed for a breakdown to occur, i.e. 5 + 95 = 100.

The reaction type (clinical form) assumed by the resulting breakdown or disorder: This is dependent upon the type of personality

(which is determined by the hereditary or constitutional factor), rather than upon any particular acquired or precipitating factor (psychosocial or physical). The physician who knows the personality of the individual will often be able to predict the clinical form the disorder will take e.g. if the personality is of the schizoid type, the disorder will be of the schizophrenic reaction type.

For example, during war all people are exposed to air raids (the same psychological stress). Those with inadequate personality will get a breakdown, the type of which depends upon the type of personality, e.g. one will suffer form anxiety neurosis (anxious personality), another will get hysteria (hysterical personality) and a third will develop schizophrenia (schizoid personality).

GENERAL SYMPTOMATOLOGY

It is essential for the student to know the important symptoms which are met with in psychiatry, and he should be clear as to the meaning of the technical terms that are used to describe them.

In this chapter we shall define the terms used, following the order in which they are met with in the scheme of examination. (p.34).

General Appearance

State of consciousness: A *'conscious'* individual is (1) aware of himself and of his environment and (2) capable of responding properly to stimuli a) psychological (e.g. mentioning his name on asking him) b) physical (e.g. withdraw his hand on pricking it with a pin). An *'unconscious'* individual shows the opposite.

Disturbed consciousness: Between consciousness and unconsciousness there are various degrees of disturbed consciousness, some of which have names:

(1) *Confusion (sub-delirious state)* i - There is dimming or clouding of consciousness (i.e. a state of disturbed awareness of the self and the environment). ii - The mental functions show less than normal rather than anything abnormal i.e. quantitative rather than qualitative changes. All mental processes are slow a) Intellect: thinking is difficult and it is hard to attract or to hold the patient's attention. b) Affect: there is apathy (poverty of emotion). c) Behaviour: no initiation with laziness, easy fatiguability and tendency to pass into sleep (somnolence).

(2) *Delirium:* It is a symptom - complex consisting of i - clouding of consciousness. ii - The mental functions show qualitative changes or abnormal manifestations: a) Intellect shows disorientation and hallucinations. b) Affect shows emotional disturbances, particularly fear. c) Behaviour shows very prominent restlessness.

(3) *Stupor:* i - There is no profound disturbance of consciousness ii- There is complete suppression of motor activity (speech and movement). The patient does not respond to any stimulus, neither external (question or painful stimulus), nor internal (hunger, thirst or distended bladder).

(4) *Twilight state = Dream state = Trance :* i - There is a peculiar alteration of consciousness (of sleep or dream - like quality) with detachment from the environment ii - Associated with various degrees of reduced activity. It lasts for a certain period from minutes to days). It occurs in a) hysteria. b) epilepsy (psychomotor fit and petit mal status).

(5) *Fugue :* It is a state of i - disturbed consciousness (confusion or clouded state) combined with ii - an impulse to wander, usually for days. It occurs in a) hysteria and depressive states b) epilepsy (psychomotor fit and petit mal status).

Behaviour

(1) *General over-activity:* a) Mild as in agitation b) Severe as in excitement.

(2) *Stereotypy:* means monotonous repetition, which may be a) in movement (e g. touching the nose, or pacing up and down the room) b) in speech (e.g. some words are repeated).

(3) *Mannerism:* repeated movements which appear to have some functional social significance (e.g. a patient with paranoia salutes repeatedly in a grandiose manner).

(4) *Perseveration* (as opposed to stereotypy) denotes the repetition of a recent act (a movement, a word, or a phrase) inspite of the patient's effort or desire to produce a new one (e.g during a meal the patient continues to put the spoon in the plate and up to his mouth, even after the plate gets empty).

(5) *General reduction in activity:* in which there is lack of initiation and reduction of spontaneous movement. It shows all gradations up to complete immobility (stupor).

(6) *Negativism:* means automatic resistance to all stimuli.

a) In muscular field it may show itself as a resistance to passive movements (e.g. keeping the arm extended on trying to flex it).

b) In speech it consists of total loss of it i.e. mutism.

c) Negativism is seen also in the retention of saliva, urine and foeces.

Negativism, as defined by some authors, consists in the patient doing the exact opposite of what is asked of him (e.g. when asked to look up, he will look down). This is distinguished from resistiveness in which the patient simply opposes or resists anything he is asked to do (e.g. when he is looking straight and then asked to look up, he will remain looking straight.);

(7) *Automatic obedience:* in contrast with negativism there is abnormal suggestibility; it shows itself as:

a) *Echopraxia* which is repetition of actions seen (e.g. when the doctor walks the patient walks too).

b) *Echolalia* which is repetition of words heard (e.g. when the doctor says to the patient: how are you? the patient answers: how are you?).

c) *Waxy flexibility (Flexibilitas cerea)* which is the maintenance of imposed postures however abnormal they may be (e.g. raising the head of the patient from the pillow, or the arm up). The absence of fatigue in such cases is remarkable.

Catalepsy (posturing) is sometimes used for any form of sustained immobility.

Automatic movements or automatism occur in a pathological sense, without the subject being aware of their meaning and even without his being aware of their happening at all. Automatism may be a) local e.g. automatic writing or b) general e.g. in fugue and somnambulism (see p. 42).

(8) *Impulsive action or impulses :* consist of sudden outbursts of activity with little or no provocation, such as attacking another person (bystander), or breaking a window.

Talk

Talk may be disturbed in its (1) stream (2) form (expression).

I- Disorder of stream:

(1) *'Pressure'* or *'push' of talk* : it is excessive spontaneous talking, but still perfectly coherent and logical.

(2) *Circumstantiality :* there are much unnecessary details, but the object in view at the beginning is ultimately reached.

(3) *Flight of ideas :* the stream of talk is continuous, but the ideas are frequently changed (the mind flies from one idea to another like a bird flying from one tree to another). The talk becomes fragmentary, the connections being determined by chance associations between the fragments (e.g. the meaning of the last word), or by chance stimuli from the environment (distractability). Rhymes (e.g. nod, rod), other sorts of word-play and jokes are common.

An example of flight of ideas: "It is a nice garden - I like the red flowers - I went to the red sea two years ago - I would like to be a captain of a ship to go all over the seas. (The patient hears a bird singing) Singing requires a nice voice - I got hoarseness of my voice from excessive talking - No body is listening to God voice - Oh my God, let my head nod, it is not a an iron rod".

(4) *Slowing of the stream of talk* shows different degrees, until there may be no utterance at all, even in response to repeated questioning, a condition called mutism.

(5) *Blocking* is a sudden stoppage of the stream of talk, for a while and then it is resumed without the patient being able to account for such stoppage.

II- Disorder of form or expression: There is looseness of association.

(1) *Irrelevant type of answer:* when the answer is not in harmony with the question (i.e. outside the point), or even conveying no meaning at all.

(2) *Incoherent talk:* when the stream of talk is not connected at all and can not be followed (word-salad).

(3) *Neologisms:* are words of the patient's own making (i.e. new words coined by the patient), as by condensing few words into one (e.g. mother + father + baby = mofby).

Affect (Mood)

Affect or mood are both used to denote the emotional state, tone or condition. Affect is the term of preference. It is the subject's inner feeling or experience at a given moment. Affect or feelings may be a) pleasant e.g. happiness or love b) unpleasant e.g. sadness, hatred, fear, guilt, shame, disgust and anger.

Disturbance of affect (emotion): may consist of variations in i - depth (intensity) ii - duration iii - setting or appropriateness in the particular situation. Such disturbances can be grouped under two categories:

I - Quantitative disturbances:

(1) *Elation is* used for shear happiness or gladness. It is pathological when out of accord with the patient's actual circumstances.

(2) *Euphoria* is a generalized feeling of well-being (not amounting to a definite affect of gladness).

(3) *Exaltation* means something in addition to elation, an element of grandeur.

(4) Ecstasy is a feeling of happiness, usually with a mystical colouring.

(5) Depression is a feeling of sadness. It is pathological when out of accord with the patient's actual circumstances.

(6) *Anxiety* · is a fear of danger usually from within. It is usually fear of illness or death; sometimes it is undefined. It may occur either as a continuous state of fear, or more commonly in episodic attacks.

(7) *Apprehension:* is fear of danger from outside (external danger) e.g. car accident.

(8) *Apathy* . is absence of affect, or loss of emotion, or lack of feeling (there is loss of both emotional expression and experience).

(9) *Indifference:* is lack of objective emotional response. (there is loss of emotional expression, but emotional experience is preserved).

(10) *Emotional deterioration :* is a progressive failure to show the normal emotional responses (characterized by a childish, easily suggestible, facile state).

(11) *Irritability* mean emotional response elicited with undue readiness.

(12) *Morbid anger :* is an unprovoked transient angry outburst with violence. (In children and mentally defectives, it is called 'tantrums').

II – Qualitative disturbances:

(1) *Incongruity or disharmony of affect :* is inappropriateness of affect

to though content (e.g. the patient feels happy while he believes that he is going to be killed by his enemies).

(2) *Ambivalence* denotes the simultaneous existence of contradictory emotions (e.g. love and hate), or ideas (e.g. being present and absent at the same time, or present in two places simultaneously e.g. in Alexandria and Tanta). It occurs in schizophrenia.

(3) *Emotional instability or incontinence* is incapacity to control the emotions and their expression. The emotions change from one extreme to the other with no obvious cause (e.g. laughing and weeping). It occurs in gross organic lesions of the brain (e.g. the pseudobulbar syndrome Fig. 8).

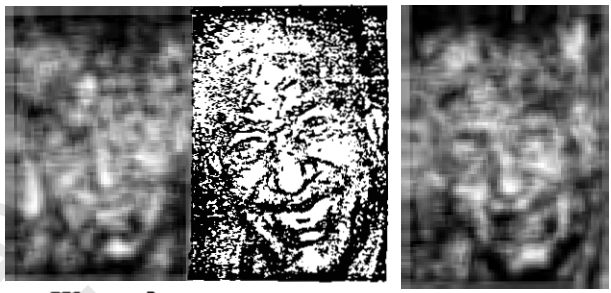


Fig. 8 : A case of cerebral arteriosclerosis (left) showing emotional instability i.e. laughter (middle) followed by weeping (right) without a cause.

Thought

The thinking process may be disturbed in its (1) stream (2) form or expression (3) content. The first and second are the same as those discussed under under talk.

I – Disorder of stream: The stream may be hurried as in mania, retarded as in depression or show blocks as in schizophrenia.

Difficulty of thinking may be due to a) retardation of the thought processes with poverty of ideas or b) difficulty in concentration on one topic due to preoccupation with another.

II – Disorder of form (expression): Vagueness of expression may be due to irrelevant type of answer, incoherent talk (word salad), or neologism as in schizophrenia.

III – Disorder of content (Abnormal thought content): the most common are delusions, ideas of unreality and obsessions.

(A) Delusions: *A delusion is a false belief which can not be accepted by persons of the same social standard as the person expressing it.*

If the false belief is accepted by others it will not be a delusion. For example if a farmer in an Egyptian village mentions that devils are living in his house, it will not be a delusion because the whole village believes that devils may live in houses.

Delusions may be i - systematized (well knit) when they form a coherent system and appear to be logical, or ii - unsystematized when they are fleeting and appear to have no logical connection.

Types of delusions: The following are the common types.

(1) *Delusion of persecution* in which the patient believes that he is harmed by others (e.g. chased, poisoned, etc.).

(2) *Delusion of grandeur:* in which the patient believes that he has special gifts or powers (e.g. very rich, strong, intelligent, etc.).

(3) *Delusion of reference* in which the patient believes that everything in the environment is referring to him (e.g. people talking in the street. newspapers, radio, television, etc. are referring to him).

(4) *Delusion of influence (Passivity feeling)* in which the patient says that he is under the influence of electricity, wireless, hypnotism or telepathy, utilized by some other person. Such delusions include such diverse ideas as a) that the patient's thoughts are being read b) his limbs are moved without his control or consent by some invisible agency.

(5) *Delusion of self - reproach (self-blame) or sin :* in which the patient feels that he is wicked, full of sins and unfit to live or mix with other people (feeling of unworthiness).

(6) *Delusion of poverty* in which the patient believes that he lost all his money, property and every thing in life.

(7) *Hypochondriacal delusion* in which the patient is convinced that he has a physical disease (e.g. cancer stomach) in the absence of any evidence thereof.

(8) *Paranoid delusions :* The term 'paranoid' implies a) resentful sense towards a hostile environment b) associated with a tendency to form systematized delusions to explain such attitude.

(9) *Delusions of jealousy :* more common among men, with doubt about wife's fidelity.

(10) *Religious delusions :* with a religious content (e.g. persecution, reference or grandeur).

(11) *Nihilistic delusion* in which the patient declares that he does not exist (dead) and that there is no world.

(B) Ideas of unreality (Unreality states): These are states in which the patient feels a change either in himself (depersonalization) or in his environment (derealization). They are usually not delusional and the patient recognizes their abnormality and complains of the distress which they cause.

(1) *Depersonalization :* the patient feels that he is no longer himself; he can no longer believe in his own existence. When he looks in the mirror he feels himself changed throughout in comparison with his former state. He feels unreal, strange, lifeless, detached and automatic.

(2) *Derealization :* the patient feels that the outer world has changed; the people, streets and houses look different and unusual. He wonders whether his friends are the same people as they were, or whether indeed they exist at all.

(C) Obsessions: *An obsession is (1) a feeling of compulsion to repeat some mental or physical act (2) which the patient resists (3) recognizing that it is absurd and meaningless.*

The patient with an obsession struggles against it, while that with a delusion fights for it.

Examples of obsessions : A patient may have to remember and repeat the serial number of a bus-ticket he has e.g. 815619 (mental act), or to wash hands whenever he shakes them with any individual (physical act). He recognizes that these acts are meaningless. If he attempts to overcome (resist) the compulsion by not carrying out the act, such resistance causes so much mental unrest (anxiety and depression) that he invariably succumbs and in so doing experiences a feeling of relief of tension.

Perception

Perception is the process of becoming aware of what is presented through the sense organs. Its disorder causes:

(A) Hallucinations: *A hallucination is a false perception without an external stimulus* (thus the individual who sees an animal in the room, when none is present, is hallucinating). Hallucinations may occur in any of the special senses leading to the following types: auditory (hearing actual voices and not noises which we call tinnitus), visual, olfactory, gustatory (of taste), tactile (of touch) and somatic (deep sensation).

Causes of hallucinations: Hallucinations may be normal (hypnagogic) or pathological; the latter may be psychogenic or organic.

(1) *Hypnagogic hallucination:* occur in normal people in the state between sleeping and waking. The individual who experiences them usually realizes their hallucinatory nature.

(2) *Psychogenic hallucinations:* occur in psychoses particularly schizophrenia.

(3) *Organic hallucinations:* occur in the following.

a) Toxic states e.g. visual hallucinations, usually of a terrifying nature, occur in alcohol and morphine addiction, more commonly associated with withdrawal of the drug.

b) Lesions of the brain (especially tumors) i - lesion at the uncus (in temporal lobe) causes hallucinations of smell and taste ii - lesion of the visual pathways causes visual hallucination of the unformed or simple type (simple flashes of light) in occipital lobe lesion, and of the formed or the complex type (seeing of animals) in temporal lobe lesion).

(B) Illusions: *An illusion is a false perception with an external stimulus,* thus the individual who sees a rope and believes that it is a snake is the subject of a visual illusion. Illusions may affect any of the special senses (auditory, olfactory, etc.).

Orientation

It is appreciation of one's (1) temporal (2) spatial (3) personal relations at the present moment. Therefore we examine orientation for (1) time (2) place (3) person. A false orientation is called disorientation.

Memory

There are three fundamental processes for remembering (1) registration (2) retention (3) recall.

Disorders of memory are commonly divided into i - amnesia ii - paramnesia iii - hyperamnesia.

(1) *Amnesia:* is loss of memory and may be partial or complete. It occurs in psychogenic and organic diseases.

The following types of amnesia are described a) Anterograde amnesia when there is loss of memory for recent events. b) Retrograde amnesia when there is loss of memory for remote events. c) Total amnesia when there is loss of memory for all events, recent and remote. d) Circumscribed amnesia when there is loss of memory for a limited time (amnesic gap).

a) Psychogenic causes (usually hysterical) lead to circumscribed amnesia (for a certain painful incidence), or total amnesia (even for the name and address).

b) Organic causes (e.g. cerebral arteriosclerosis) lead to amnesia for recent events, while that for remote ones remains intact; the reason is that in organic brain disease registration and retention fail much earlier than recall. Later on the three processes for remembering fail and amnesia for both recent and remote events occurs.

(2) *Paramnesia:* It denotes false recall; two types are described: a) *Confabulation:* when the patient fills the gaps in his memory by fabrication i.e. by giving imaginary accounts of his activities (Thus a bed ridden patient will describe a walk which he asserts he has just taken). It usually occurs in organic diseases (Korsakoff's syndrome which is typically seen in alcoholism). b) *Falsification* (illusion of memory): when the patient adds false details and meanings to a true memory. It occurs in organic and psychiatric diseases (e.g. paranoid states).

(3) *Hyperamnesia* consists in excessive memory, the patient mentions even small unnecessary details. It is present in a) some normal people (prodigies) b) Some mental disorders (hypomania and paranoia).

Attention and Concentration

These terms are used for describing the experience that certain objects are in the center of consciousness, whilst others lie more towards the periphery.

Attention may be disturbed in various ways :

(1) *It may be difficult or impossible to arouse the attention* of the patient. This occurs in a) states of disturbed consciousness (e.g. confusion) b) self-absorption due to depression or schizophrenia.

(2) It may be difficult or impossible to *maintain or keep the attention* of the patient due to distractability.

Distractability is a disorder of attention in which the patient gives attention to every passing stimulus (e.g. some body coughing, a door opened or a bird flying), consequently his attention passes very rapidly from one object to another (it is very prominent in manic states).

The attention may be active (voluntary) or passive (involuntary). It has been pointed out hat (1) In organic diseases: active attention is often good, while passive attention is poor i.e. objects in the center of consciousness are observed, while those towards the periphery are not. (2) In psychogenic diseases (e.g. schizophrenia) the reverse occurs e.g. the patient does not pay attention to what the doctor says to him and at the same time he pays attention to what the nurses talk about.

General knowledge

The idea is to know whether the patient is in touch with his surroundings or is living in a world of his own. This point will be clear when we come to the examination (p. 34).

Intelligence

A rough idea about the intelligence of the patient must be made, to know whether he is of an average intelligence or towards the higher or lower side. The method used will be mentioned under examination (p. 34).

Insight and judgement

Insight : is the amount of realization the patient has of his own condition. Does he regard it as an illness? If yes, does he regard it as a mental or a physical one? The insight might be lost totally (when he says that he has no illness, or partially (when he says that his illness is a physical one).

Judgement : is the ability to grasp the meaning of a situation and hence react to it appropriately. A patient with no insight will have bad judgement towards his social, financial and domestic problems (thus he will say that he is not in need of treatment and must leave the hospital and go back to his job, while actually he is unfit for that).

A test for judgement is to ask the patient what would you do if you find (1) a letter on the platform with the address and stamp on it? (2) a young boy lost in the street? if he has good judgement he will say I will i - put the letter in the post-office box ii - take the boy to the police-station.

PERSONALITY AND PHYSIQUE
The Personality In Psychiatry

Definition of personality : It may be defined as 'the person as he is known to his friends'. To know its type, certain questions are asked (see premorbid personality p. 36).

Personality is the total quality of an individual's thoughts, feelings, manner of acting and his philosophy in life.

Normal personality : there is no fixed dividing line between the normal and the abnormal personality.

Types of personality : Certain personalities are less adapted than others to face adequately the environmental stresses. This may be the result of (1) inherited handicap or (2) faulty upbringing. Personalities of this type are especially prone to develop mental illnesses.

I – One of the commonest is the *general type called inadequate personality or 'mental instability'* which shows psychic immaturity and impulsiveness and is the soil from which most cases of neuroses and psychoses arise.

II – *More specific types* are the following:

(A) **Personalities prone to develop psychoses :**

(1) *Cycloid personality :* This is prone to develop manic-depressive psychosis. a) The individual is extroverted and sociable b) He is warm-hearted in his emotional reactions (i.e. his reactions to external situations is both warm and appropriate e.g. he feels sad for the illness of a friend). c) He shows spontaneous affective lability (mood swinging) between cheerfulness and mild depression.

When one mood predominates it is called hypomanic or depressive personality.

(2) *Schizoid personality :* This is prone to develop schizophrenia. a) It is the introverted or 'shut-in' type of personality. The individual is reserved, shy and solitary; does not mix freely with his fellows as in playing games. b) He is cold in his emotional reactions c) He shows a tendency to excessive day dreaming.

(3) *Paranoid personality :* This is prone to develop paranoid disorder (e.g. paranoia). a) The individual is sensitive, suspicious, with the feeling that other people treat him badly. b) He is unable to tolerate criticism and consider himself right and every one else wrong. c) There is over-evaluation of the ego (self) leading to proudness and jealousy. Such unpleasant character does not allow for satisfactory interpersonal relations.

(B) Personalities prone to develop neuroses :

(1) *Anxious personality :* This is prone to develop anxiety or depressive state. a) The individual is anxious, tense and is a chronic worrier b) He is self-doubtful (never sure about himself) with lack of self-confidence) c) He is gloomy (expecting the worse to happen) and always has a feeling of insecurity.

(2) Hysterical personality : This is prone to develop hysteria. Its features are in essence the normal features of childhood exaggerated and prolonged into adult life as follows. a) Immaturity and childish thinking and emotional reactions with easy laughter and tears. b) Tendency to over reaction (react excessively) to situations i.e. dramatizing like an actor on the stage. Such over reaction leads to the following two features. c) High suggestibility i.e. easily influenced by persons or ideas that appeal to him. d) Imitation i.e. remarkable capacity for identifying himself with others and for imitating them. e) Self-deception: a striking skill in it is the last but not least characteristic feature.

Hysterical personality (character) should be distinguished from hysterical symptoms (disease), for they may be observed independently of one another.

(3) Obsessional personality : This is prone to develop obsessional neurosis. a) The individual is over conscientious and idealistic with high moral standards (making big demand both upon himself and upon others). b) Rigid (often appears to others as unduely fussy and overstrict) and overcareful (may appear to be slow owing to the weighing of the pros and cons that precedes action). c) Excessively neat and tidy. d) Finally, often much preoccupied with his health, diet and bowels (hence the term anal character is given to such personality.

(C) Sociopathic personality :

This type will be discussed in more details later (p. 161).

The importance of studying the personality:

(1) *For prevention :* When we know the weak vulnerable personalities, we can prevent the development of a disorder (breakdown) if we avoid the precipitating factors (environmental stresses). This is the job of the family doctor who gives advises (e.g. the member with inadequate personality must not receive bad news, as death of a parent, in a sudden way.

(2) *For diagnosis :* When the clinical picture of a psychiatric illness is not definite e.g.? schizophrenia? depressive psychosis, the knowledge of the premorbid personality will help. If it is of the schizoid type this will favour the diagnosis of schizophrenia, while if it is of the cycloid type the depressive psychosis is the most probable diagnosis.

(3) *For prognosis :* The outlook in mental disorders depends very much upon the premorbid personality. If such personality is well adjusted and stable the prognosis will be good, while the opposite occurs if it is of the type called inadequate 'mental instability'.

Changes in personality (Fig. 9) :

(1) *Dissociation (splitting) of the personality :* two types.

a) Molar dissociation: this occurs in hysteria when one or more complete blocks of the personality undergo dissociation from the whole. The separate portions may then function independently, giving rise to the condition known as double or multiple personality.

In such condition a) the same individual at different times appears to possess an entirely different personality and character b) each of the different personalities shows complete ignorance of the other. A well known example of this is R.L. Stevensons 'Dr. Jekyll and Mr. Hyde'.

R.L. Stevenson was an ordinary man and this is the original personality. Sometimes he becomes very kind and helpful to his neighbors and this is Dr. Jekyll. At other times he becomes aggressive and criminal and this is Mr. Hyde.

It seems probable, more over, that a similar but less complete dissociation can occur in normal individuals and may be responsible for the wide differences in character and disposition shown by the same individual in different circumstances.

b) *Molecular dissociation :* It is the essential characteristic of schizophrenia. It differs from the dissociation occurring in cases of double personality in that it is not the detachment of a complete block, but a disintegration or fragmentation of the internal structure of mind. The result is disharmony (incongruity;) between the three spheres of mind (intellect, affect and behaviour). An example is the patient who believes that his persecutor will kill him (intellect or thought), at the same time he laughs (affect or feeling), and goes to shake hands with his persecutor (behaviour or conduct).

A similar, but less severe, disintegration (splitting) of the personality is seen in various types of dementia due to organic diseases.

Preservation of the personality : The [illegible] demonstrate that, inspite of some disease process, the previous traits (characters) are clearly recognizable and especially, in a narrower sense, when the [illegible] his ordinary social decorum (appearance) and keeps his clothes neat and tidy.

Thus dementia paralytica (G.P.I.) which is a progressive disorder involves complete and rapid disintegration of the personality, contrasts with cerebral arteriosclerosis where, in the early stage at least, the patient has complete insight and tries to preserve his previous social appearance.

(2) *Transformation of the personality :* As a result of a delusion, the patient believes that he is some other person (e.g. the director of the hospital) and to some extent acts upon that belief. This is especially seen in paranoia (see the example of patient with mannerism on p. 19).

(3) *Depersonalization :* It occurs in some cases of mental disorder, particularly depression and schizophrenia. For description see (p. 23).

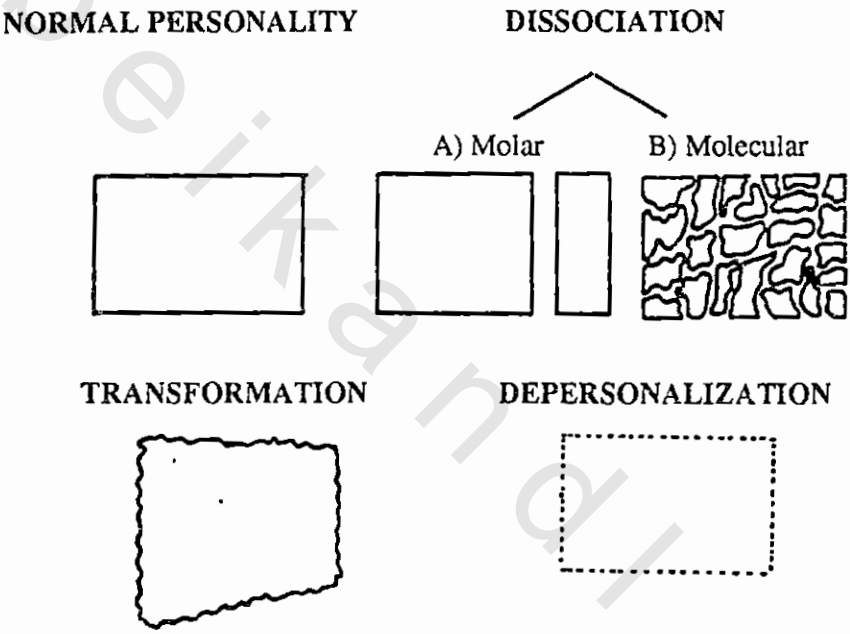


Fig. 9 : Shows the normal personality and the changes occurring in it.

The physique In Psychiatry (Fig. 10)

We differentiate mankind on the basis of their physique (body built) into:

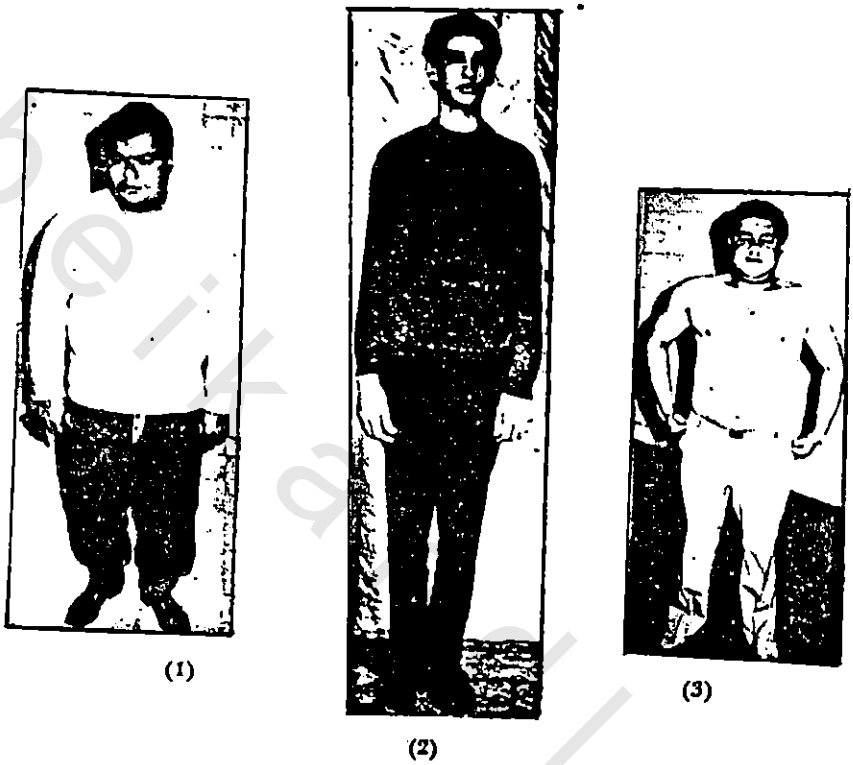


Fig. 10 : The types of physique. (1) Pyknic (2) Asthenic (3) Athletic.

(1) *Pyknic type :* short, stout and rounded with thick neck.

(2) *Asthenic type :* tall, lean and flat with poor muscular development. The chest is long, narrow and flat (skin poorly vascularised and pale, while extremities tend to be cyanotic).

(3) *Athletic type :* strongly-built skeleton and muscles. It is less clearly defined that the other two types.

There is a certain affinity between :

(1) The pyknic physique, cycloid personality and development of manic-depressive psychosis.

(2) The asthenic physique, schizoid personality and development of schizophrenia.

(3)? The athletic physique, paranoid personality and development of paranoid psychosis.

The help of the physique in diagnosis : The mentioned facts may be of help in the diagnosis of borderline cases (? schizophrenia ? manic-depressive psychosis). In such cases, if the physique is of the asthenic type, the diagnosis of schizophrenia is the favourest, while if it is of the pyknic type the diagnosis of manic-depressive psychosis is the most probable.

However these facts are by no means invariable and there are many exceptions e.g. a patient with asthenic physique may develop a manic-depressive psychosis, and a patient with pyknic physique may develop a schizophrenic psychosis.

METHOD OF EXAMINATION (PSYCHIATRIC CASE-TAKING)

It is just as important in psychiatry as in general medicine to have a method of examination; for unless a systematic scheme is followed important points may be easily missed. The following two items are essential:

(1) *Examination of the patient :* The specific psychiatric method of examination is the interview one (questionnaire method of examination), since there is no instrument (like a stethoscope) by which we can examine the mind. In practice of psychiatry a common obstacle enters, which is not found in other branches of medical practice, namely a partial or total unwillingness on the part of the patient to co-operate with the examiner. It is this type of patient which requires much patience and skill on the part of the examiner.

(2) *Additional information :* It is of fundamental importance to supplement and correct the information obtained from the patient by enquiries from other sources such as relatives, friends and employers. It is much better to collect this relevant information before the patient is seen because, if it is done after, he will feel that the examiner is not believing in what he said. For this additional information the help of a trained psychiatric social worker in collecting the necessary data is advised.

Scheme of examination:

Preliminary data : we start by taking the name of the patient, his address, age, sex, occupation, civil status (e.g. single or married) and religion. Then we proceed to the following:

I. History of present illness

II. Personal history

III. Family history

IV. Examination: (A) Mental state (B) Physical examination.

N.B. In following such a scheme, it must be remembered that in psychiatry a good deal of elasticity is necessary, for it is essential to establish and maintain a satisfactory contact (rapport) with the patient. Unless this can be achieved, the picture obtained will be incomplete and misleading. (Thus while taking the history of the present illness - 1st. item -, if the patient starts to talk about his family -3rd. item- you have to listen to him without interruption, and not ask him to postpone that until you go to the family history).

A spontaneous account of the illness by the patient should be first encouraged; further details being filled in later. Too systematic an approach to the history often results in a mass of facts being obtained, but the nature of the problem, as it is seen by the patient, being entirely over-looked.

I – History of present illness:

Note : If the disorder is a recurrent one, concentrate on the present episode here, leaving the previous ones for personal history (under health record).

(1) *Complaint and reason for admission :* details of that should be taken.

(2) *Sequence of events :* a detailed and chronological account is necessary:

a) *Onset :* One has to start by asking the patient when he was last in normal health, in order to fix, as accurate as possible, the date of onset of his present illness. Thus the date of the first deviation from the normal should be stated as accurately as possible and then the development of the symptoms should be followed step by step.

b) *Etiological factors :* One has to enquire carefully about possible etiological factors and precipitating causes existing at or near the onset. Thus coincidence with external stresses is noted; they are usually a combination of psychosocial (e.g. loss of a dear person) and physical (e.g. influenza) factors acting on a soil predisposed by hereditary constitution.

Importance of psychosocial factor : To decide that it plays a role in the etiology, three criteria are needed. (1) It must be adequate in severity and closely related in time to the onset. (2) There must be a clear connection between it and the content of the disorder (e.g. preoccupation with a lost dear person). (3) The disorder begins to disappear when the psychosocial factor has ceased (e.g. finding a lost dear object).

c) *Course :* One has to ask about the course, whether the condition is getting better, worse or the same. Observe any relation to environmental factors.

d) *Opinion of others :* One has to ask about i - the opinion (diagnosis) ii - sort and result of treatment of other doctors, if that was done.

This may help in diagnosis e.g. if the patient was given an antidepressant with no benefit, most probably his illness is not a depressive disorder.

II – Personal history :

The personal history should cover the development of the patient from the time of conception up to the onset of the illness.

(1) *Early development :* a) Social circumstances of the parents at the

time of conception and whether the child was wanted or not. b) The condition of the mother during pregnancy, any disease (particularly German measles) or trauma. c) Type of delivery, whether easy or difficult. d) Date of walking (usually during the 2nd. year) and talking (usually at end of 3rd. year). e) Diseases of childhood (e.g. measles, etc.) f) Sleeping arrangement (e.g. double bed or single bed).

(2) *Neurotic trails during childhood (nervous habits) :* e.g. nail-biting, thumb-sucking (Fig. 11), stammering, nocturnal enuresis, faddiness about food (e.g. not eating milk products), night terrors, sleepwalking, tantrums (see morbid anger p. 21), breath-holding spells, different phobias (e.g. fear of the dark, etc).

However, there is no evidence that these neurotic traits are precursors of neurosis in adult life.

Fig. 11 Thumb-sucking

(3) *School record :* age of beginning and finishing, standard reached, and behaviour (any truancy i.e. running away from school).

(4) *Work record :* Jobs held, why taken on, how long held, pay received and reasons for change.

The work record is the best indicator for assessment of the stability of the personality. Frequent change of job means inadequate personality.

(5) *Sex record and marriage:* This sensitive topic should be dealt with cautiously and not in the presence of others. a) *Before marriage:* sex development (age of puberty). information about sex (how obtained), masturbation and sex experience. b) *Marital history :* pregnancies, contraceptive measures, partner (personality and relations) and children (number and relations).

(6) *Health record :* a) Physical illnesses, accidents, operations. b) Mental illnesses: symptoms, duration and treatment given c) Habits: smoking, drug, addiction, alcohol drinking, etc.

(7) *Premorbid personality ;* The aim is to get a description of the personality before the illness and whether it was normal or abnormal (i.e. belonging to one of the types described on p. 28). Usually one can not describe his premorbid personality accurately; an account from another informant (e.g. a friend) is often useful.

a) *Social relations :* i - To others: good mixer (extroverted) or not (introverted or shut up, shy and timid); leader or follower (e.g. in a trip). ii - To family: dependent or independent (e.g. on choosing his clothes).

b) *Intellectual activities and interests :* hobby (how does he spend the leisure time?); books and films (whether criminal or romantic?).

c) *Affect (mood) :* stable or fluctuating (swinging); cheerful (optimistic) or sad (pessimistic); emotional reactions warm or cold, stable or not (easy laughter and weeping); anxious (worrying, insecure and self-doubtful) or self-confident.

d) *Character :* sensitive; suspicious; proud; jealous; selfish; aggressive and quarrelsome; highly suggestible and good imitator; overconscientiousness, idealistic and overcareful; neat and tidy; religious (preying and fasting) or not.

e) *Behaviour (energy) :* how spent? i - In practice or lazy with easy fatiguability). ii - In fantasy (nature of day dreaming) iii - Enquire about dreams (their type).

II – Family history:

This section is concerned with family of origin; spouse and children were mentioned with personal history (under sex record and marriage).

(1) *Parents :* Occupation, personality, health, cause of death.

(2) *Siblings :* the same as parents.

(3) *Social state of family and home atmosphere :* financial state, number of rooms and family relations.

(4) *Familial diseases :* mental (including suicide), drug addiction epilepsy.

Do not start off by asking whether there is insanity or suicide in the family. Enquire not merely for nervous and mental disease, but also for physical ones; (e.g. hypertension, diabetes), preferably make this enquiry first, so as to reduce the alarm of the role of the hereditary factor in mental diseases.

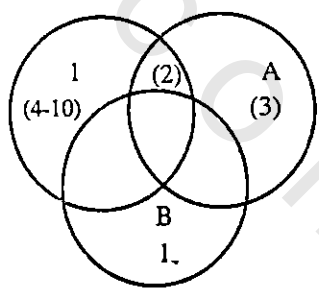


Fig. 12 : examination of mental state covering the three spheres of mind

IV – Examination :

(A) Mental State :

Examination of the mental

state must cover the three spheres of mind. The following items will do so-B- Behaviour is covered by item (1) -A-Affect by item (3) -I-Intellect by item (4) to (11). Talk which is item (2) gives an idea about both affect and intellect (Fig. 12).

(1) *General appearance and behaviour :*

a) The facial expression, (looks ill or healthy) dress (dirty or clean) and attitude (in touch with surroundings or not) often tell at a glance the underlying state of the patient. b) The general behaviour of the patient is observed. i - Is he cooperative on examination? ii - Observe his activity: is it retarded (e.g. stupor) or excessive (e.g. agitation)? iii - How does he spend the day? (e.g. in bed, sitting alone, etc.).

(2) *Talk :* We are not concerned here with the content of talk (which will be examined under thought), but with its a) *Stream :* does the patient talk spontaneously or only in answer, does he say much or little, slow or fast? Observe any change of topic (flight of ideas), or sudden silence (blocking). b) *Form (Expression) :* observe any irrelevant type of answer, incoherent talk or neologism.

A sample of the talk has to be written down.

(3) *Affect (Mood) :* a) The patient's appearance may be indicative of his mood. b) The answers to the following questions will also indicate the mood: How do you feel in yourself? What about your spirits? c) Many varieties of mood may be seen, not merely happiness or sadness, but such states as fear, apathy (see p. 21); also suspicion, anger and perplexity. d) Observe the constancy of the mood, the topics which change it, the appropriateness of the patient's mood to what he says (observe any disharmony). e) When the mood is depressed ask cautiously and indirectly about any suicidal ideas (e.g. Do you feel life not worth living?).

(4) *Thought :* i - Observe any disorder of a) stream b) form (expression) c) content. The 1st. and 2nd. were discussed under talk. For the 3nd. search for any abnormal thought contents (delusions, ideas of unreality, obsessions). ii - Enquire about dreams.

(5) *Perception :* Observe any disorder as a) hallucinations b) illusions.

Listen carefully to the contents of the delusions and hallucinations. Avoid their reinforcement by agreeing.

(6) *Orientation :* Test for a) *Time :* what is the hour, day, month and year? b) *Place :* where are you now? c) *Person :* who are those surrounding you?

(7) *Memory :* a) *Remote events :* this may be tested by comparing the patient's account of his personal history (e.g. date of marriage) with that given by relatives. b) *Recent events :* occurring in the last day or two: enquire about meals, visits, etc. c) *Immediate retention :* i - Digits: Spoken slowly, normally 7 forwards (e.g. 2851671) and 5 backwards (e.g. 31952 becomes 25913) can be repeated. ii - Recall of an address after 5 minutes is tested (e.g. A.exandria. 18 Saad Street, 4th. floor, flat No. 46).

(8) *Attention and concentration :* a) Repeating the days of the week, or the months of the year in a reverse order (e.g. Friday, Thursday, Wednesday etc.) b) 100 - 7 test: subtracting serial sevens from one hundred, observing answers and time taken (e.g. 100 - 93 - 86 - 79).

(9) *General knowledge :* To see if the patient is in touch with the surroundings or not ask about the following: a) Name of the president and his predecessor b) Six large cities in the country c) Capitals of foreign countries d) Five fruits or vegetables in the summer season.

(10) *Intelligence :* a) Explanation of a proverb (e.g. a stitch in time saves nine; the early bird catches the worms). b) Definition of abstract words (e.g. envy). c) Mathematical problems. (e.g. 3 x 9 + 13).

(11) *Insight and judgement :* a) Does the patient regard himself ill; if yes which means that he has insight, ask him about the nature of his illness (physical or mental or both), to know whether the insight is partial or complete (see p. 26). b) What about his judgement regarding the question of need for treatment, hospitalization, discharge, plans for the future and family responsibilities?

(B) Physical examination:

(1) Physique and general health.

(2) Nervous system.

(3) Other systems.

Importance of physical examination : It is always essential to perform a thorough physical examination, special attention being paid to the examination of the central nervous system. Even when this has been previously carried out by a general physician, it is well to do gain. The patient considers his examination incomplete unless he is examined physically as well as mentally. If the physical examination is not carried out, the patient will believe that the doctor just talked to him and did not examine him.

FORMULATION

It is a short summary of the case and must include:

(1) All the positive findings in the history and examination.

(2) Provisional diagnosis and differential diagnosis These are mentioned in order of probability, giving evidence for and against each one.

(3) Plan on investigations e.g. interview with relatives; laboratory tests.

(4) Comment on prognosis (see p. 54).

(5) Plan of treatment (see p. 56).

GENERAL PSYCHOPATHOLOGY

Definition : Psychopathology is the science which tries to explain the psychological (mental) disorders by disturbances in the normal psychological processes.

To understand the abnormal (psychopathology) we must first have an idea about the normal psychological processes, principles and laws.

The structure of the Mind (Psyche or Personality) (Fig 13): The structure or topography of the mind consists of two parts (regions, stages, zones or layers). (1) Conscious mind which contains all the ideas which are present at any given moment or which can be recalled by the ordinary act of remembering. (2) Unconscious mind which contains ideas stored and can not be recalled by act of remembering, but needs special techniques such as hypnoanalysis or psychoanalysis. These ideas in the unconscious region of the mind are still capable of activity, but can not appear directly upon the conscious stage. The reason is that there is a censor (resistance) between the conscious and the unconscious mind which guards the conscious zone from the appearance of the imprisoned (repressed) and therefore unwelcomed ideas.

Complex: A complex is (1) a system of connected ideas (2) with strong emotional tone (pleasant or painful) (3) and a tendency to produce actions of a certain character (particular behaviour). The complex is named according to its associated emotions (e.g. hobby, love, inferiority, guilt and jealousy complexes).

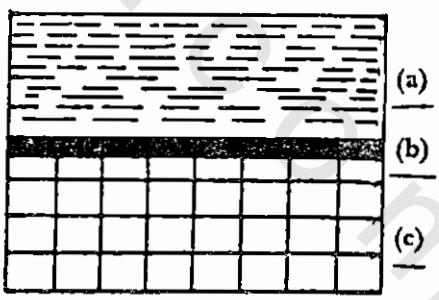


Fig. 13 The structure of mind
(a) conscious mind.
(b) censor (resistance)
(c) unconscious mind.

The stronger the emotional tone of a complex, the greater will be its influence on the behaviour of the conscious mind. Such action of a complex is similar to the 'force' in physics. A complex is not constantly active, but only becomes so under a certain condition 'stimulus'. The stimulus occurs whenever one or more of the ideas belonging to the complex is activated by a) some external event or b) processes of association occurring within the mind itself (e.g. the love complex may be stimulated by a) hearing the name of the beloved b) remembering an event that occurred with her).

A hobby is regarded as a type of complex e.g. poetry. A poet may be interested in a scene, which does not arouse the interest of other people, and he may make it the subject of a poem. Whenever he comes across a book he searches for poetry, and with friends he tries to turn the conversation to his favourite hobby. He might be stimulated by hearing a song in the radio or by chain of associations leading from some indifferent idea to an idea belonging to his hobby (e.g. walking in a street named after a poet).

The individual may not be aware about the existence of a complex i.e. it is in his unconscious mind. In that case the complex may exert a pronounced effect upon the conscious mind, while the individual is altogether ignorant about the causes which are really determining his own conscious mental processes.

An example of this is the party politician who has a 'political complex' that makes him, party biased. His arguments and behaviour may be so unlogic, he is unaware of the complex in his mind and believes that his opinions are formed only by the logical data before him.

Conflict : The complex may not be in harmony with the mind as a whole (personality) because (1) its emotional tone is very painful or (2) it leads to actions which are incompatible with the moral principles. In such a case struggle arises between the complex and the personality, such a state of forces at war within the individual is called a 'conflict' (Fig. 14). The two struggling forces tend to inhibit each other and the state of conflict is characterized by a) unpleasant emotional tension and b) indecision with paralysis of action.

An example of a conflict is the lover of the wife of his friend, His mind will exhibit two incompatible tendencies; on one hand the desire for the woman, and on the other the shame of doing so. Thus there is a clash between two different parts of the personality (the biological needs and the conscience). Such individual feels himself torn between two lines of conduct, neither of which is possible, on account of the resistance

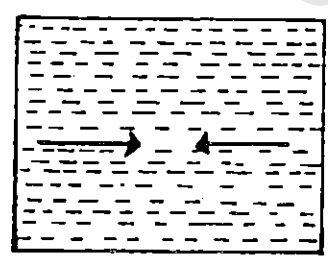


Fig. 14 : Conflict : two opposing and struggling forces in the mind

offered by the other.

A conflict can not persists indefinitely; it is a biological necessity that some solution for the problem should be found, so that the mind will be in peace after the war within it. Such solution is carried out by the mental defensive mechanisms we are going to discuss.

MENTAL DEFENSIVE MECHANISMS

The following mechanisms are used for solution of a conflict and can be demonstrated to work both in the normal individual and the pathological one (i.e. that with a mental disorder). In health these mental mechanisms lead to adequate coping (adjustment), while in disease with inadequate coping (maladjustment) they operate in excess leading to symptom formation. We shall see that the most bizarre symptoms of mental disorders are not very different from processes occurring in our own minds.

I- DISSOCIATION : Our mind (field of consciousness) at a given moment consists of an indivisible whole i.e. a uniform stream of thoughts progressing towards a definite end.

If one is engaged in writing a letter, his field of consciousness during that time consists of the various ideas necessary for that job. Then, suppose he is engaged in a conversation. In that case the writing and talking do not occupy the mine simultaneously, they have nothing in common, nevertheless some link carries the mind over the gap between them without a break in the continuity of its stream.

Dissociation of the mind (consciousness) is its division into independent fragments which are not co-ordinated together to attain some common end.

(A) NORMAL : *Simultaneous activities :* An expert musician, while playing a piece of music, may - at the same time - solve a mathematical problem (e.g. addition, subtraction, multiplication). Thus his mind does not present a uniform field of consciousness, but one divided into two parts or processes. There are many other examples e.g. the skilled seller who deals with two customers at the same time.

Dissociation of mind under these normal conditions is characterized by being (1) temporary and only partial in character (2) both activities under the control of the individual, any either may be abandoned at will.

(B) PATHOLOGICAL : Pathological dissociation is severer in degree and the patient has no control on it.

In other words, pathological dissociation consists of (1) a system of ideas divorced from the personality (2) its course and development are not under the control of personality.

(1) *Automatic writing :* It may occasionally occur in comparatively normal people, but it best seen in hysteria. In it the patient's mind is split

into two smaller minds, engaged into two different activities, and each one is totally unaware of the other.

If the hysteric is engaged in conversation with A and then B gives him a pencil and paper and whisper a question into his ear about totally different subject from the conversation with A, he might write an answer. Under such circumstances the patient is entirely unaware of what his hand is coing and is, moreover, often ignorant of the events he writes (burried memories).

(2) *Somnambulism* It is an abnormal mental condition seen in hysteria and is similar to the ordinary sleep walking to a certain extent. In it the ideas and actions occupying the mind at a moment abruptly disappear from consciousness and are replaced by those which constitute the somnambulism for sometime; then the patient returns to himself without remembering anything about what had taken place during the episode.

A hysterical girl is described; she had nursed her mother during an illness that ended in death and this was a shock to her. Subsequently she started to get attacks of somnambulism: while sleeping, she suddenly gets up and commences to live over again the painful scene e.g. getting the medicines and boiling the syringes. During this drama the patient was unconscious about her environment, heard nothing that was said to her and saw nothing but the imaginary scene in which she was living at the moment. Then, after about 10 minutes, the episode ends suddenly and the patient returns to her sleep, unaware in the morning that it had been interrupted. After some interval, the same episode is repeated. During the apparently normal intervals the patient remembers nothing of the mother illness and death i.e. there is a localized loss of memory or 'amnesia' of the painful memories.

The field of consciousness can be compared to a cinematograph screen (1) The normal process corresponds to the continuous change in the picture of a single film (2) Dissociation of automatic writing is similar to two-films at the same time, each projecting upon a separate portion of the same screen (3) Dissociation of somnambulism is similar to projecting one film, and then abruptly breaking if off, and replacing it by another film representing a totally different subject.

(3) *Double personality :* It is a condition seen in hysteria. In it, there is dissociation of the mind (consciousness) into two big fragments each possesses the patient and occupies the stage for days, weeks or months, to disappear abruptly and is replaced by the other. Each fragment is completely developed, contains all the aspects of the mental life and so the patient's behaviour is comparatively normal and adapted to the environment. Dr. jekyll and Mr. Hyde is a famous example of double personality (see p. 30).

Double personality differs from somnambulism, because in the latter the dissociated part of the patient's mind is narrowed down to the expression of certain ideas and during it he is unsusceptible to other impressions and incapable of adapting himself to his environment.

(4) *Obsessions :* The obsession is a system of ideas which is separate from, and develops independently of, personality, and which can be regarded as a dissociated fragment of mind that forces itself into it. This type of dissociation differs from the previous ones in the fact that the personality is

aware of the existence of the dissociated system.

There are many examples of obsessions, one of my patients after shaking hands with a leprotic, had the fear of getting the disease, and developed the obsession of washing his hands whenever he shakes hands with any one.

(5) *Hallucinations (e.g. auditory) :* Here the system of ideas which the voices express is regarded as a dissociated fragment of the patient's mind. In other words there is splitting of the patient's consciousness into two parts, one of which talks to the other.

The example is the patient who constantly hears voices abusing him on account of the sins he did. These voices are not real, but to the patient they seem intensely real and form a portion of his own consciousness. Although the voices formed a part of the patient's mind, yet it is obvious that they did not form a part of his personality as they came from some other person.

(6) *Delusions :* Here there is dissociation of the mind into two compartments each pursuing its own independent development, unaffected by the presence of its fellow.

The example is the patient with a grandiose delusion e.g. in the mental hospital we see the patient who believes to be a millionaire and at the same moment he bets for piaster. The wonderful belief and the hard contradicting facts exist together in the patient's mind, but they are not allowed to come into contact.

II – ISOLATION (LOGIC - TIGHT COMPARTMENT) : By this mechanism, after dissociation of the mind, the opposing groups of ideas are isolated into compartments through which no logical reasoning is permitted to pass. Thus all contact or interaction bet- ween them is avoided and so no conflict arises, because the opposites are never permitted to come face to face in the field of consciousness. (Fig. 15).

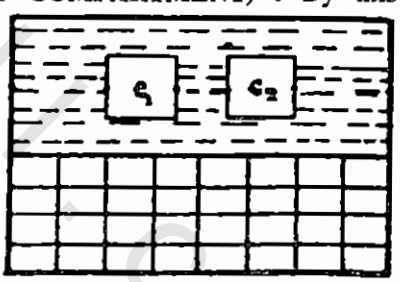


Fig. 15 : Isolation in logic-tight compartments (c_1 and c_2)

(A) NORMAL : *Passions :* In the normal life there are many examples e.g. the lover who is unable to see the obvious imperfection of his girl. If the matter is discussed with him, his mind can not see the facts, because in his mind the facts and his belief live in separate logic-tight compartments.

(B) PATHOLOGICAL - *Delusions* Here the false belief and the contradicting facts are in logic-tight compartments. The patient's belief is unaffected by out scientific demonstration of its impossibility. The patient understands our reasoning, but it is not allowed to penetrate the compartment which contains his delusions.

Rationalization : By this mechanism the real explanation of the behaviour is concealed and a false one is given. Where there is dissociation of the mind into two systems containing opposing groups of ideas, the contact between them may not be avoided. Although the two compartments are 'logic-tight' but they are not 'idea-tight'. The opposing ideas may come into contact through a distorting medium, which abolishes the contradiction present. This distorting medium or bridge is provided by the mechanism of rationalization (Fig. 16).

(A) NORMAL : Whenever our action conflict with our moral principles, we seek for an excuse (rationalization) e.g. the passenger who does not ask for a ticket in the tram, says that he is not a swindler, since it was crowded and he could not find a seat.

(B) PATHOLOGICAL :

(1) *Delusions :* The patient who possesses a delusion neglects the facts which are incompatible with his belief, but if he is compelled to take the facts into account he rationalizes them.

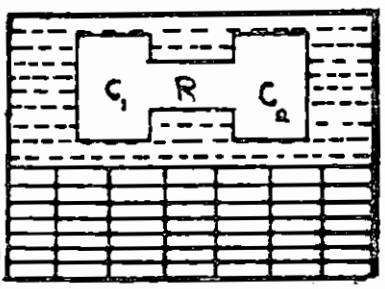


Fig. 16 : Rationalization (R) bridging the two logic-light compartments.

The patient with delusion of persecution who believes that the family wants to murder him; if they offer him food, he says that they propose to poison him, if they do not, he says that they want to starve him to death.

(2) Secondary *delusions :* To rationalize his primary delusions, the patient usually develops subsequent false beliefs to bridge over the incompatibility between the primary delusion and the actual facts.

The patient with grandiose delusions who believes that he is a millionaire, and at the same time begs for a piastre, will say that he is the victim of a plot depriving him of his property. In this way, grandiose delusions lead to delusions of persecution.

III – REPRESSION : By this mechanism, the individual involuntarily and automatically rejects from consciousness the offending complex (i.e. the ideas which are incompatible with his personality) and thus the conflict is avoided. The complex persists in the deeper layer of the mind (the unconscious mind) and is prevented from rising to the surface by the constant resistance of the repressive process. Such resistance (called censor) is a psychological barrier against bringing the unconscious ideas to the level of awareness (consciousness). The repressed complex may demonstrate its continued existence by different methods, either directly or indirectly (Fig. 17).

(A) NORMAL : *Forgetting :* Much of our forgetting is not a passive process of decay, but an active repression i.e. a deliberate exclusion of the offending memory from the sphere of consciousness.

A son may be unable to accept the fact that he dislikes his father, so he represses the hate, and only feels tense in his company. The lover of the wife of his friend represses this love and only feels happy in her presence.

(B) PATHOLOGICAL :

(1) **Phenomena due to direct expression of the complex :** The repressed complex may suddenly erupt and occupy for a time the whole field of consciousness as in the following conditions:

a) Somnambulism (read the example p. 43) In somnambulism, during the apparently normal intervals, the painful complex (e.g. the system of ideas associated with the mother's illness) is repressed. During the somnambulism the complex suddenly makes its appearance and the patient lives once more through the whole tragic scene. It must be observed that, even during the somnambulism, the mechanism of repressions is still efficient, because its opponent (represented here by the remainder of the personality) has in turn been shut out from the field of consciousness. Thus during the somnambulism the patient is totally absorbed in his fantasy and is unaware about actual surrounding environment.

b) Double personality : It differs from somnambulism only in degree.

(2) **Phenomena due to the resistance (censor) :** These phenomena assist the resistance and help the repression; they are regarded as weights added to the repressive process.

a) Reaction-formation is the mechanism by which one develops in the conscious mind the opposite attitude to that present in the unconscious mind towards the offending complex.

(A) NORMAL : In elderly unmarried women, the sex complex becomes repressed and this is helped by the exaggerated prudery observed in them.

(B) PATHOLOGICAL : a) Some manic states e.g. a patient suffering from incurable disease (cancer) was first depressed and then became elated and passed into a manic state. b) Some obsessions e.g. an individual who used to steal little objects in his childhood developed, in his later life, exaggerated honesty and used to spend long time in counting money. Another example is the individual who did a sin and then develops excessive washing of hands (washing mania). Thus the personality reacted to the moral uncleanliness by the symbolical exaggerated cleanliness.

b) Drug intake : The artificial elation produced by drugs (e.g. Hasheesh, opium, alcohol) is an artificial means of overcoming the effects of stress and helps the repressive forces, Unfortunately this effect is only temporary and repetition will lead to addiction which prevents the individual from coping with his everyday life. Addiction may occur i - in normal individuals ii - but in many cases there is an underlying repression of a painful complex.

c) Continuous activity to fill the consciousness : so that the repressed complex can be not make its appearance.

(A) NORMAL : In every day life, when a painful subject is introduced into our conversation, one tries to divert the talk by a rapid flow of remarks about other subjects.

(B) PATHOLOGICAL : a) Rapid flow of talk and flight of ideas seen in manic state may serve the same purpose. b) Talking past the point seen in schizophrenia may have the same meaning. c) Mutism in which the patient preserves a rigid silence is the exact opposite to rapid flow of talk, but serves a similar purpose. Such mutism is seen in some neurotic and psychotic cases.

(3) **Phenomena due to indirect expression of the complex :** The complex expresses itself along an indirect (distorted) route to avoid the resistance offered by the censor (Fig. 17). Such expression must be sufficiently indirect to ensure that the real origin of the ideas appearing in consciousness is concealed from the individuals himself.

(a) Symbolization : It is the mechanism by which one idea or object is employed to represent some other idea or object which is emotionally charged. Repressed material in both normal and sick people has usually a symbolic expression.

(A) NORMAL: In unmarried or infertile women, the repressed maternal instinct may be symbolized in an exaggerated affection for animals (e.g. cats).

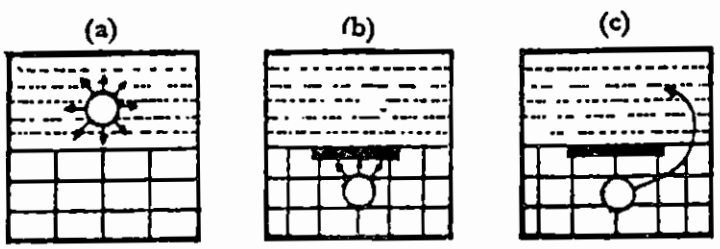


Fig. 17 : (a) Complex in conscious mind (b) Repression (c) Indirect expression

(B) PATHOLOGICAL: there are many examples:

i - Obsessive - compulsive thoughts and act : may be symbols.

A lady changed a coin from a man who said that he will keep it forever. This remark made the lady to fall in love with him, but it was a love from one side and she never saw him after that. The complex was repressed to banish the painful chapter from her life. Later on the complex made indirect expression since the lady suffered from obsessive compulsion to examine the serial number of every banknote which came into her hands.

ii - Stereotyped actions of schizophrenia : may be symbols.

A lady was engaged to a carpenter who suddenly broke the engagement. This was a great shock to her and she passed into schizophrenic reaction. The painful complex was repressed, but it expressed itself by symbolization. All day long the patient was continuously moving her arms resembling a carpenter engaged in sawing wood.

iii - Neologism : some of the new coined words may be symbols for repressed complexes in schizophrenic patients (see p. 21).

b) **Projection :** It is the mechanism by which the individual disguises his own unacceptable desires and attitudes by ascribing them to other people.

(A) NORMAL : People who possess some fault or deficiency, of which they are ashamed, are intolerant of that same fault or deficiency in others. Such a fault constitutes a complex which is unaccepted by the personality as a whole and will lead to a conflict causing self-reproach. The personality avoids the conflict by projecting the offending complex on some other person and thus reproaching him.

There are many examples e.g. the homosexual always mentions the sexual perversions of others, the miser always blames others for being mean, and the thief always talks about dishonesty of others. In general, whenever an individual always points to a certain fault in others, we suspect that he has the fault in question.

(B) PATHOLOGICAL: There is a painful complex which is repressed to avoid conflict, then the repressed complex obtains an indirect expression by projection on some person (real or imaginary).

i - Delusions (e.g. persecution and reference) : In delusion of persecution the complex itself is projected. In delusion of reference the projection is concerned with the reproaches to which the complex gives rise.

Persecution : An unmarried woman may complain that a certain man is always following her and may go to the police with this complaint. Psychologically, the patient's sex desires have been revived to activity by the man in question but, since she is ashamed of that, repression of the desires occurs, and then indirect expression by projection takes place. In may cases with delusions of persecution, the delusions are projected into an individual who has no real existence (imaginary individual); the patient's mind invents, not only the man's conduct, but the man himself.

Reference : In the above example, the complex is accompanied by self-reproach, the

patient no longer reproaches herself, but believes that other people are reproaching her. The patient becomes intensely suspicious, if two fellows are talking together she imagines that she forms the topic of their talk.

ii - Hallucinations : The system of ideas (complex) which the hallucinations express is incompatible with the personality as a whole, and its appearance in consciousness would cause a conflict with painful stress. To avoid this, repression occurs, then the repressed complex obtains an indirect expression by projection.

In patient with delusions that other are reproaching him, the development of hallucinations is common. The portion of his mind, which the personality has cut off and repressed, makes its appearance indirectly by projection as a hallucinatory voice. Hallucinations may be regarded as 'the small voice of conscience distorted by repression'.

The patient will complain, not only of the actions of persecutors, but also he hears their voices abusing him.

THE IRRATIONALITY OF THE INSANE

The irrationality of the insane is only apparent, because the observer does not see the chain of mental processes which have produced the result, but the result itself, standing as an isolated phenomenon without obvious basis or justification.

The apparent absurdity of the delusion rests on the fact that it is the indirect expression of some other mental process hidden from view (repressed complex). This other process is understandable, once it has been elicited.

Because of that, it is useless to argue with the insane concerning his delusion (false belief, irrational opinion). Our arguments will be directed, not against the real hidden cause of the delusion (the repressed complex), but merely against the superficial manifestations, and thus they will be ineffective. The only result of our arguments will be either (1) rejection as being senseless or (2) stimulating the patient to produce rationalizations.

The irrational opinions or false beliefs are not peculiar to the insane. There are a large number of processes in the normal mind which possess the same characters, mainly those due to 'herd motive'. This motive (formally called instinct) ensures that the opinions, beliefs and behaviour of the individual are in harmony with that of the community (herd or fellow men) as a whole. Thus he will have settled views (beliefs) about matters which are still unsolved e.g. origin and nature of the universe, what will happen to him at death and after, and what should be the basis of conduct. All these beliefs,

which are considered scientifically to have no basis (irrational), are held with a peculiar emotional warmth and thus form a complex. If we argue with the holder of such beliefs, the complex will protect itself by one or two defensive reactions, either (1) the arguments are rejected as being senseless or (2) a flood of rationalization will be produced.

Therefore, irrationality is not peculiar to the insane. It is true that his delusions have an irrational origin, but it is equally true that the great bulk of opinions and beliefs held by the normal man arises in a similar way.

If irrationality is not pathognomonic of insanity, *what are the essential features which distinguish insanity from sanity ?* The following features as a whole, and not a single one, will help in the differentiation.

(1) The degree of manifestation : We have seen that the psychological mechanisms are the same in sanity and insanity, but in the latter the process has been carried further, and so the difference is quantitative and not qualitative. In both groups the manifestations are due to repressed complexes with subsequent indirect expression. In the insane the expression is more indirect and thus more distorted with rationalizations which are less logic than those met with in every day life.

Thus the student who ascribes his failure to the difficulty of examination is still sane, while that who goes to the authorities complaining that all the examiners intentionally want to destroy his future is definitely insane.

(2) *The behaviour :* The behaviour of the insane is characterized by being antisocial (dangerous to himself or others). Such behaviour may be a) positive e.g. the patient with delusions of persecution may attack his persecutors or b) negative e.g. the same patient may sit alone in a closed room, not taking part in the social life.

(3) *The opinion of the community :* The irrational beliefs of the sane are supported by the opinion of his community, since they are the result of the operation of the herd motive. On the other hand, the irrational beliefs (delusions) of the insane are not so supported, since they are individual aberrations, dependent upon the factors working in opposition to herd motive as will be further considered.

FANTASY

A complex has to satisfy its desires. There are two modes of satisfaction (the self-assertion) complex with its ambitions will be taken as an example).

(1) *In action :* The individual struggles to obtain a position which will ensure to him the respect and admiration of others.

(2) *In fantasy :* the individual will indulge in day dreaming, building pleasant mental pictures in which the complex attains an imaginary fulfilment.

Fantasy (day dreaming) is the mechanism of imaginary wish-fulfilment : may be.

(1) Normal : The day dreaming occurs normally at every age, but it attains its most luxuriant development during adolescence. The individual is aware that he is day dreaming and is losing touch with what is going on around him (absent minded), but it is possible to draw himself back to reality. In other words he is dissociated from his real world, but this dissociation is only partial and temporary.

(2) Pathological : Here the dissociation is complete and permanent. The patient separates himself altogether from the real world and lives permanently in a self-made world, where all the desires belonging to the complex are fulfilled.

The patient has a complex (ambitions), the desires of which can not be fulfilled, either because the environment opposes obstacles or because his capacities are less than his desire. As a result of that a conflict between the complex and the reality arises. To solve this problem, reality is repressed and the complex plays unchecked upon the stage of consciousness. In other words the patient escapes from reality and flies into disease.

This mechanism which has been termed *'wish-fulfilment'* can be demonstrated in many mental disorders e.g. (1) Hysteria (the belle indifference) (2) Manic states (the elation and associated delusions) (3) Schizophrenia (the grandiose delusions).

In many chronic schizophrenic cases, the complex frequently undergoes a process known as 'degradation'. Its expression becomes more distorted and stereotyped, often degenerating into an apparently meaningless speech and action, representing the wreck of the old complex.

IDENTIFICATION

It is the mechanism by which the individual identifies himself with another individual, either real or imaginary, experiencing his feelings and desires. The stimulus which gives rise to the identification is often to be found in the fact that the second individual possesses some character or position which is desired by the first.

Identification is intimately related to fantasy construction and is seen in both normal and pathological conditions.

(1) Normal : Identification plays an important part in our development

and enhances self-esteem. The young boy identifies himself with his father and the student identifies himself with his professor. On reading a novel or attending a film, the individual identifies himself with the hero and thus enjoys the task.

(2) Pathological : The mechanism of identification underlies many manifestations, about the real origin of which the patient is unconscious, e.g.

a) Hysteria : Many manifestations are the result of unconscious identification with a second individual who suffers from an organic disease (e.g. hemiplegia), but who also has some features desired by the patient (e.g. beauty).

b) Schizophrenia : The patient may identify himself with a famous man and claims that he is that man.

THE SIGNIFICANCE OF CONFLICT

From what have been said, there are two conceptions which are very important and can explain many abnormal phenomena (e.g. delusions, hallucinations, etc); these are (1) conflict (2) dissociation.

Dissociation is regarded as one of the nature's method for dealing with conflicts which seem insoluble by other means. Hence, it we investigate the causes responsible for a mental disorder, the discovery that dissociation exists is only the first step and we have to go further back to the conflict which will be found behind it.

Conflict is thus a fundamental factor in the etiology of mental disorders. The nature of the conflict is as follows :

(1) In most cases the conflict, which is discovered to be responsible, is of comparatively minor character, and the complex concerned involves only the more superficial elements of the mind.

(2) More profound investigation and analysis show that the conflict involves the great primary innate or inherited motives (formerly called instincts) which constitute the principal driving forces of the mind.

A motive or drive is an internal state or set of the individual which disposes him towards certain modes of behaviour for seeking certain goals.

The are two groups of motives (1) Inherited or innate or unlearned (formerly called instincts). (2) Acquired or learned.

The main inherited motives are the following :

(1) Self-preservation motives e.g. those for organic needs (as hunger and thirst); those for emergency needs (as fear and escape motives; anger and fight motives).

(2) Race-preservation motives e.g. sex, maternal and paternal motives.

(3) Herd or social motives.

Animals are divided into two groups a) gregarious (live in a group or herd like the deer) b) non-gregarious (solitary like the lion). Man belongs to the gregarious or social animals. The motive enforces the individual to follow the ethical code, moral tradition and line of conduct of his society. Some authorities believe that the herd or social motives are acquired or learned. We believe that these motives are partially innate and partially acquired.

The struggle is usually between one of the primary motives (e.g. sex motive and herd motive with its tradition) and each of the opposing motives possesses an enormous emotional force. The patient solves this conflict by dissociation and repression of the herd motives. Thus his complexes attain fulfilment in a world of fantasy, while the world of reality with all its incompatible mental processes (including those due to the herd motives) are shut out of the field of consciousness.

(1) In mild cases this change shows itself as loss of interest in the fellows and tendency to be solitary.

(2) In severe cases the change is much more marked and the code of conduct imposed by traditions is not followed; thus the individual neglects his personal appearance and becomes dirty and shameless. This picture is seen in chronic psychiatric cases.

PREVENTION OF MENTAL DISORDERS

According to what we said, there are two possibilities for preventive measures:

(1) *To avoid conflict :* We have to deal with the environment by modifying the traditions and codes belonging to the herd motives, so that no antagonism occurs between them and one of the other primary motives. This is impossible to fulfil.

(2) *To avoid dissociation :* We have to deal with the individual to prevent the tendency to dissociation, which is a constitutional factor inherited in the individual's mind; its elimination by selective breeding may be possible in the future.

DIAGNOSIS AND PROGNOSIS

Diagnosis : It must include the following items :

(1) The reaction type.

(2) The premorbid personality.

(3) The etiological factors a) Hereditary or constitutional b) Acquired factors i - psychosocial ii - physical.

An example : schizophrenic disorder; in a schizoid personality; etiology a) hereditary

factor is strong (+ ve. family history) b) acquired factors are mild i - psychosocial ; condition started after a quarrel among neighbors ii - physical : nil.

Prognosis : In general it depends upon the following items :

I - The clinical picture .

(1) The disorder type : e.g. the neuroses are better than the psychoses; in neuroses the anxiety neurosis is better than the obsessional neurosis; in psychoses the manic-depressive psychosis is better than the schizophrenic psychosis.

(2) The onset A clear cut acute onset which allows for early diagnosis and treatment is better than an insidious onset which makes the case undetectable, except later on.

(3) The duration : An illness with short duration tends to have a good outcome, whereas a long chronic course is unlikely to be easily or rapidly ended. The reason is that the longer the illness, the more the patient looses confidence in himself and in his treating doctor, and the more his external social circumstances become complicated.

(4) The age : The patient's age is important in some diseases e.g. a) In neuroses, particularly anxiety state, the younger the age the better is the outlook, because the personality is mobile, less rigid and easily adjustable b) In manic-depressive psychosis (particularly manic states) when the episodes start after the age of 40 years, they tend to become chronic c) In schizophrenia the younger the patient, the less resistant and solid will be the personality and the greater will be the tendency to disintegration.

II - The premorbid personality .

(1) A well-balanced personality with wide interests is better than the inadequate one with 'mental instability'.

(2) The intelligence and educational attainments : the more these the easier the treatment and the better the prognosis.

III – The etiology

(1) The hereditary (constitutional) factor : the stronger this factor, as shown by a positive family history, the worse is the prognosis.

(2) The acquired (precipitating) factors : the presence of a strong precipitating factor (stress), psychosocial or physical, renders the prognosis better,

IV – The treatment .

(1) The earlier the treatment, the better the prognosis, because this will not allow for complications (psychological and social) to develop (see p. 56).

(2) The co-operation of the patient and his willingness to undergo treatment has a great influence on the outlook. Therefore patients with insight have better prognosis that those with no insight.

TREATMENT

Importance of early treatment : The treatment should be carried out as early as possible, because the earlier the treatment the better the prognosis.

The patient should be kept at work, or returned to work as soon as possible, since the longer he is away from it, the more difficult it is for him to go back, either because of (1) his own feeling e.g. the loss of self-confidence or the reaction of the personality to the illness in a hysterical way (2) the changes in the external social circumstances due to his absence from work (e.g. the employer bringing another employee).

Aim of proper treatment : It is to find out the cause and remove it. In psychiatry it is not possible to remove a hereditary or constitutional factor, but this does not mean that nothing can be done.

General management and Nursing care :

Place for treatment : (1) Minor disorders (the neuroses) are treated in the outpatient. (2) Major disorders (the psychoses), specially when acute, should be treated in hospital. It is often advisable to treat patients in single rooms, rather than in large wards. However, separation makes nursing care more difficult.

Diet : Should be generous, but easily digestible.

Bowels : Should be regularly evacuated and since many patients tend to be constipated laxatives and enema may be required.

Important symptoms : which are common to many psychiatric illnesses and require special treatment and nursing care are the following:

(1) Insomnia : Before giving hypnotics (p. 66), the following points should be remembered : a) Search for any cause such as uncomfortable bed, coldness, hunger, thirst, noise or over-indulgence in smoking, tea and coffee.. b) Fresh air in the room and exercises during the day should be encouraged. In some cases of insomnia, warm bath and massage at bed time are helpful.

(2) Refusal of food : Refusal of food or insufficient food intake is common in mental disorders and may be a disguised form of suicidal attempt. If it is impossible to induce the patient to take sufficient nourishment, artificial nasal tube feeding must be started without undue delay. After aspirating the gastric contents we give a meal of about 2 pints composed of milk, tea, eggs, soup and fruit juices. The temperature of the food should be suitable (about 37°C). Such meal should be given twice or thrice daily and it is essential to keep a weight chart for such a patient.

(3) Excitement : For outbursts of violence one or more of the following methods are used :

a) Mechanical restraint : The nurses must approach the excited patient with an unfolded blanket held in their arms. The blanket is thrown over the patient who is immediately put to bed. Then manual restraint by two or more strong nurses until the injected drug works.

b) Chemical restraint : Drugs of the major tranquilizer group are very effective in cases of excitement. They are given by intramuscular injections every 4 - 6 hours, but recently long acting ones, given every 2 – 3 weeks, are used (p. 70).

(4) *Suicide :* It is one of the greatest risks in dealing with patients suffering from mental illnesses. If a patient is considered to be a definite suicidal risk, he should never be left unobserved for a moment. Sharp instruments e.g. knives, scissors and razors should not be allowed. Shoe-laces, belts and pyjama cords are sources of danger. Medicines should not be left with the patient, as not only the medicine. but the glass bottle it is contained in, may be used as a means of suicide. The patient should not be allowed to sleep with his head under the bed clothes. In the bath room great care must be taken to prevent the patient from putting his head under the water. The patient should never be allowed to come near the barred windows or naked flames.

Methods of treatment : In psychiatry there are three methods of treatment, and the patient may be in need of one, two or the three of them. They are I - Environmental (social) treatment. II - Psychological treatment. III - Somatic treatment.

I – ENVIRONMENTAL (SOCIAL) TREATMENT

Environmental factors may exert a significant influence on mental functions. Therefore, the manipulation of the environment helps in psychiatric treatment.

This is not strange when we know that environmental factor can influence even organic diseases as diabetes mellitus. A diabetic patient may show marked improvement on changing his place of work in which he is unhappy.

(1) *Environmental adjustment :* The object is to modify environmental factors in order to provide satisfactory environmental conditions. The relation of the patient to his environment must be studied very carefully, and the desirable alterations are made as far as possible. a) At home, disturbances in family relations may necessitate advice and guidance to the whole family. b) At work, suitable advice to employers as to how to deal

with patient has often greater value than any approach that is confined to the patient himself. c) Admission to a hospital involves a sudden and complete change of environment, and a marked change in the clinical picture may result from this simple measure. d) The separation from the relatives, whether the patient is in hospital or an out-patient, may be very useful both to the patient and to the relatives who obtain, at least temporary, that peace which only comes 'with loved ones far away'.

(2) *Occupational (work) therapy :* (Fig. 18) Patients suffering from mental illnesses often experience lack of : a) energy with laziness b) self-confidence with hesitation and difficulty in making decisions c) interest in every thing, except perhaps in their own symptoms. To overcome all these lacks we use occupational therapy by giving the patient something to do and this makes him : a) active all the time b) regain self-confidence by finding himself capable of doing some useful job c) fill his time and distract his attention from himself and cultivate interests.

(a) (b)

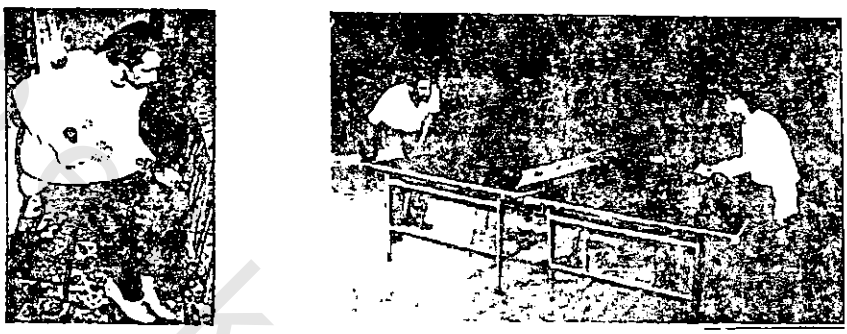
Fig. 18 : Occuptional therapy :
(a) Carpentery b) Carpet weaving.

Workshops attached to the hospital are commonly used in occupational therapy. Handcrafts are useful e.g. needle work, painting, basket work, making toys and paper flowers, leather work and book-binding. Also. carpentry, laundry and gardening work are useful employments. The more such occupation resembles the work the patient will have to take up after leaving hospital, the more valuable it will be in his rehabilitation for normal life.

(3) *Entertainments :* (Fig. 19) These are as important as the occupational therapy in order to fill the leisure time of the patient.

Different varieties are advised, such as going to the library, social club, listening to

music, radio and television, playing games (e.g. dominoes, ping-pong, basket ball, foot ball) and making trips (going outside the hospital e.g. to the beach).



(a) (b)

Fig. 19 : Entertainments (a) playing music (b) playing ping-ping.

(4) *Religious activity :* The practice of religious activity (e.g. preying, particularly with a group and fasting during Ramadan) helps many patients. The reason is that faith in the God and dependence upon him give the individual emotional security.

II – PSYCHOLOGICAL TREATMENT

By psychological is meant the treatment of patient by mental as distinct from (physical or chemical) methods. Any relief of symptoms based on mental communication and interaction between the doctor and patient is called psychotherapy. It is based on the simple fact that when a miserable individual talks to some one about his troubles he heels better, as he gets matters 'off his chest'. Although often considered to be something new, psychotherapy is in fast one of the oldest and most used methods of treatment. It was extensively employed, although perhaps unconsciously, by practitioners of ancient time. It is still used nowadays, also largely unconsciously, by many medical practitioners. The doctor who, by his reassurance, explanation and suggestion, brings relief and hope to his patient, is practicing psychotherapy, although he may be unaware that he is doing so.

There is nothing magical about psychotherapy. It is simply a method of treatment which

is based upon a knowledge of the composition and working mechanisms of mind. The psychotherapist applies this knowledge to investigate and discover what is wrong with the mind of patient, he then aims at the correction of this fault by carefully chosen means. Psychotherapy, therefore, consists of two separate acts, namely investigation (by detailed history) and treatment, although these are often used concurrently.

Indications : It is necessary to point out that some patients with mental disorders are psychologically inaccessible; in general the psychoses are incapable of being treated by psychotherapy.

The chief indications for psychotherapy are: (1) The neuroses (particularly anxiety state, reactive depression and hysteria). (2) The physical or organic bodily diseases (e.g. hypertension or diabetes) complicated by psychogenic complaints (e.g. secondary or reactive anxiety and depression).

Types of psychotherapy : There are two types (A) Minor psychotherapy (B) Major psychotherapy.

(A) Minor (Supportive) Psychotherapy

This type of psychotherapy is easy and can be carried out by any doctor. The following are the main forms which usually reach only the conscious mind and are used to support or help the patient. Its aim is symptom relief (without personality change).

(1) **Discussion, explanation and guidance :** i - Discussing the problems of the patient and making clear the nature of the illness may bring about great improvement e.g. his dyspepsia started when his wife became pregnant and they do not want any more children. ii - Explanation of the origin of his symptoms in simple non-technical language is of great help e.g. his headache is due to the scalp muscles tightening up and not due to brain tumor. iii - Guidance may be necessary regarding the work or family e.g. whether to change the job or divorce the wife. The patient may be given direct advises concerning certain problems, but it is preferable to do this indirectly by helping the patient to make his own decisions (e.g. the anxious student who is asking whether to postpone his examination or not).

(2) **Reassurance :** that the symptoms are not due to organic disease as proved by the negative thorough physical examination. The patient is thus convinced that his symptoms are psychological in origin. Many patients have no difficulty in grasping the fact that the mind influences the body (see p. 1), that their symptoms are the normal accompaniments of their emotional disturbance; consequently their symptoms cease, once they have understood their emotional origin. The therapist should gently encourage the patient to 'express his feeling with his mouth rather than his body'.

The patient commonly believes that his symptoms are unique to him alone; reassurance

is given by telling him that there are many sufferers with the same illness. It may be of great help to arrange for a meeting with them as it is done in group therapy (to demonstrate the universality).

Also the patient commonly loses his self-confidence and when he assesses his life, can see nothing but failure. This is not totally true as he tends to omit from his evaluation that he has abilities as in the case of student who broke down after failure in examination. The therapist can help him to regain self confidence by pointing his abilities out to him e.g. that he passed in some subjects.

(3) **Suggestion :** Consists in the presenting of an idea to the patient and the acceptance of this idea in the absence of logical grounds for its acceptance. As an example is the patient with hysterical paralysis of the arm who is told that he can move his arm, and after a while he will move it. The suggestion may be augmented by electrical stimulation or other means. Suggestion may also be used in patients whilst they are under hypnosis since in the hypnotic state they are much more suggestible.

The methods of inducing a hypnotic state are :

a) Hypnotism : It is not so much used now as formally. It must be remembered that only a proportion of mankind can be hypnotized. It is an excellent method for removing hysterical symptoms. The technique is simple, the patient lies in a bed and is told to relax his muscles and make his mind as blank as possible. Then he is told to look intensely at some bright object hold a short distance infront of his eyes. It is then suggested to him that his sight is getting dim and that he is getting sleepy. The eyes, if they remain opened, are gently closed by the doctor and the patient is asked to sleep. He is then in a condition to answer any question and to receive and act upon any suggestion made to him. After the session he is wakened by the simple command to wake up.

b) Induced narcosis : by intravenous administration of barbiturates (e.g. evipan sodium) a drowsy suggestible state, short of falling asleep, is induced; the drug removes the inhibition of conscious resistance (censor) and consequently the repressed memories are quickly recalled by the patient. This method is used in :

i - Removal of hysterical symptoms (e.g. amnesia or paralysis).

ii - 'Abreaction' which means emotional releasing of repressed traumatic experiences (e.g. war neuroses); the patient is encouraged, while in the state of drowsiness to go through the painful experience (e.g. the battle and the bombing). The emotions produced with the recall of these experiences can facilitate the disappearance of symptoms.

(4) **Persuasion :** consists in the presenting of an idea to the patient and the acceptance of this idea by reasoning (i.e. by giving the patient logical reasons for the acceptance of the idea), and so it differs from suggestion. As an example, the patient with the hysterical paralysis is told that he can move his arm, but at the same time he is also told that there is no disease of the nerves, muscles or joints and consequently there is no reason why he should not move his arm. Anyhow, persuasion always contains a large element of suggestion.

Crisis Intervention : This form of psychotherapy is short-term one which aims at helping a person in a state of crisis due to an overwhelming stress (e.g. the mother who lost her only son, or the husband who found his wife with a friend). This treatment deals predominantly with the patient who had attempted suicide. It starts with a detailed inquiry of what has been happening recently, to know the nature of the problem. It consists of two forms of therapeutic help : (1) Intensive care which consists of a) removal from the stressful environment (e.g. moving to stay with a friend) b) transferring his responsibilities to others (e.g. children are sent to relatives). (2) Crisis counselling which consists of facilitating a) the expression of affect e.g. weeping (which is beneficial if it has not been sufficiently ventilated) b) the problem solving behaviour e.g. divorce (the final decision must be made by the patient and not the therapist).

(B) Major (Interpretive or Insight) Psychoanalysis

This type of therapy needs a specialist (psychotherapist). Psychoana- lysis is the name given to the special method of exploring the unconscious mind in which unpleasant experiences (complexes and conflicts) are repressed (Fig. 20). Although the patient is not aware of these experiences, they have an effect upon his conscious mind (intellect, affect, behaviour). Psychoanalysis consists in exposing or bringing to the surface these unpleasant experiences, and setting free the emotions attached to them, as a result of which the patient's mental health benefits. Thus it has two broad aims: symptom relief and personality change (e.g. the modification of traits such as aggressiveness or timidity).

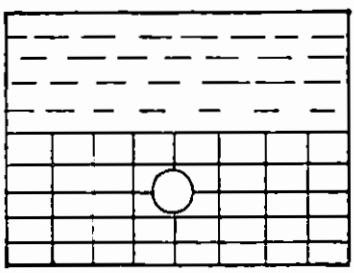


Fig. 20 : A complex producing a conflict repressed in the unconscious mind

Indication ; It is indicated in (1) patients suffering from neurotic symptoms (2) mild personality disorders who are willing to change. The session usually lasts for about one hour and is held about three times weekly, probably over a period of months or even years.

Methods : chief method of psychoanalysis employed is :

Free association : in this the patient is asked to relax on a couch or chair with the operator sitting behind his head. The patient is encouraged to talk about whatever thoughts and feelings that may come into his mind. however unpleasant and repulsive they may be. Initially the talking should be allowed to proceed any direction the patient desires; subsequently aspects of his problems which seem relevant may be suggested by the doctor as themes (subjects) for talking. The error that is commonly made is that the doctor talks too much by lecturing the patient and giving advises. In order that the patient achieves a better knowledge of himself, it is essential that he should do most of the talking, the doctor saying

little, but maintaining an attitude of interest and expectation. The patient might show resistance by sudden change of subject or by silence which indicates that the responsible conflict is being approached. It the patient's flow of talk stops, encouragement can often be given without diverting him from his present theme, by repeating his last phrase in a query form. Thus if he says 'I found the situation too hard for me' and then becomes silent, after giving him ample time to resume spontaneously, the doctor may say 'you found the situation too hard for you!', which starts the patient off again. The effect of this method : a) The patient feels better for having talked to someone about his troubles. b) He gets insight i.e. discovers the true nature of his problem (that was hidden in his unconscious mind) and will, at that stage, accept interpretations (explanations) which, if given earlier, would have been rejected.

(C) Other Psychotherapies

(1) **Group therapy :** While the previous psychotherapies are individual ones, this consists of assembling together a group of patients, usually less than a dozen. They are encouraged to express freely, in the presence of an experienced psychiatrist and of each other, what is in their mind. Since the mental patient usually believes that he is the only one suffering, this procedure tends to break down the feeling of isolation which is common, and to develop a sense of comradeship. The explanation and reassurance (guidance) given by the psychiatrist often appear to be more effective when given in this way to the group than to the individual, though many of the patients may need individual therapy in addition. Later guidance can be offered by both therapist and patients (the latter commonly advise one another on how to solve problems).

Groups may be described as open or closed, according to whether their membership is continually changed (owing to some patients leaving and new members being added), or remain restricted to the original members of the group. It is better for the group to be homogeneous in composition, particularly in age, sex and diagnosis. The sessions usually last for about one hour and are held 1-6 times per week. It is valuable in addicts, homosexuals and sociopaths.

Psychodrama - This is a specialized form of group therapy, it consists in the dramatization of the problem of one of the patients by a group of patients in public. In addition to its value in treatment, the method proved to be of use in research into various forms of group behaviour.

(2) **Family therapy :** It is a new technique which emerged due to awareness of the importance of the interaction between family members in determining the behaviour pattern of the individual. The therapist's aims are: a) To understand the origin of the problem and the role that the family has played in its genesis and maintenance b) To plan a course of treatment (the changes required in patient and family for the relief of the problem and for the improvement of family life). There are various types of family therapy :

i - Family therapy when a child or adolescent is the referred patient: This is resorted to in the treatment of abnormal behaviour or sociopathy leading to maladaptation at home, school or community and in drug dependence. The therapist invites not only the family (parents, grand parents and siblings), but other important figures around the patient (other relatives, friends, neighbors and school fellows).

ii - Marital therapy : It is resorted to when there is a marriage problem. There are five main relationships between a couple: (1) physical (sexual problems) (2) emotion (e.g. some evaporate within the first marriage year because there was an emotional cheating)(3)

social (e.g. gambling drinking) (4) intellectual and (5) spiritual (e.g. having little in common will make the marriage ties weak. The therapist invites both partners together as a couple, and in addition he may see each spouse separately.

iii - Sex therapy : It is resorted to in the treatment of the couple who present with sexual dysfunction. The latter covers such problems as: (1) In the male: erectile failure and disturbed ejaculation (premature or delayed). (2) In the female: inability to experience orgasm, or to become sexually aroused (frigidity). The therapist - as in marital therapy - sees the partners together and also separately.

(3) **Behaviour therapy :** Is is a recent form of psychotherapy which is based on the physiological principles of learning, conditioning, inhibition and reinforcement. It considers that neuroses are caused by stressful experiences which have lead to learned faulty reaction or behaviour (i.e. symptoms) to alleviate anxiety, and which require to be unlearned to relieve the patient. Such treatment is directly symptomatic; the underlying conflicts are disregarded. It is mainly used in neuroses, personality disorders (sociopathy, sexual perversions and drug addiction) and behaviour disorders of childhood (stammering and enuresis). The main types of techniques are the following:

a) Desensitization : It is used when fear or phobia has been acquired in relation to a particular object or event (e.g. handling a knife). It consists of graduated brief repeated exposure to stimuli similar to those inducing his symptom, but at such low intensity that arousal does not occur (e.g. showing him the picture of a knife and then a wooden knife). Then the stimuli are gradually increased until the patient is able to face the original stimulating situation without fear (e.g. showing him the knife at a distance and then gradually bringing it nearer and nearer until he catches it).

Desensitization may be helped by the following methods before exposure to the stressful situation : i - Anxiolytic drugs ii - Relaxation procedure by training the patient to inhibit his anxiety by exercises of muscle relaxation; remember that in anxiety state there is increased muscle tone or muscle tension.

b) Conditional avoidance or aversion : It is used when the patient shows an abnormal behaviour which is desired to be stopped (e.g. alcoholism or homosexuality). An unpleasant or painful stimulus (e.g. emetics or mild faradic shocks) is associated repeatedly with the stimuli that tend to lead to the abnormal behaviour (e.g. tasting alcohol or showing the picture of the sexual organs of an individual of the same sex). With repetition the patient will stop his abnormal behaviour.

c) Reinforcement : It is used when a desirable behaviour occurs infrequently by the patient. Efforts are made to increase its frequency by rewarding (e.g. the non-speaking child is rewarded. when he utters sounds, then words and finally constructs sentences).

d) Fatigue out : It is used in tics, by encouraging the patient to practice the act (e.g. twitching the face) until exhaustion prevents him from producing the tic. With repetition the tic might stop.

e) Flooding : This method is the extreme opposite of desensitization. It consists of extreme prolonged repeated exposure to the stressful situation, e.g. in phobia of knife, many are brought and put in hands and pockets of the patient.

f) Modelling : This is the procedure when the therapist first demonstrates what the patient has to do to encourage him. Thus in phobia of dirt of W.C. the therapist sits on it

infront of the patient . then the patient imitates the therapist.

(4) **Cognitive therapy :** It is a recent form of psychotherapy intended to change wrong (maladaptive) ways of thinking, and thereby bring about improvement in psychiatric disorders. It was first used for treating mild depression, but now used for other disorders (anxiety, somatoform, etc.).

In patients with emotional disorders certain kinds of recurrent thoughts are described by them (e.g. in the depressed patient about personal failure; in the phobic patient about fears). In cognitive therapy, the therapist attempts to change the disordered way of thinking, e.g. the unreasonably pessimistic ideas of the depressed patient, or the irrational fear of the phobic patient. Two techniques are used, verbal and behavioural:

I – Verbal techniques : are used in two ways i - with guidance from the therapist in therapy sessions, and ii - by the patient during every day activities.

Verbal technique to interrupt cognitions (e.g. an anxious patient's thoughts that he will die of a heart attach). are of two kinds:

(1) ***Thought distraction*** **:** either focussing attention on i - environment e.g. counting objects in the room, or ii - mental content e.g. arithmetic multiplications.

(2) ***Thought stopping*** **:** A sudden sensory stimulus can be arranged e.g. by snapping a rubber band on the wrist to neutralize the emotional effect or irrational thought. At the same time the patient repeats to himself the appropriate rational thought e.g. 'my heart is beating fast because I am afraid, not because I have a heart disease'. It may be helpful to the patient to carry a 'card' on which the rational thoughts are written and to read it several times in time of stress.

Therapist's role in treatment sessions (usually 6-12) is to correct the wrong thoughts by giving true informations. Example : in a depressed patient the idea to be a happy person, one must be successful in every thing he does. Such idea makes the patient more depressed. The therapist corrects it and encourage the patient who failed in his job to try a new one.

II – Behaviour techniques : Most cognitive treatments include some behavioural elements (e.g. desensitization in phobic disorders), so the term *cognitive-behaviour therapy* is generally applicable.

III – SOMATIC TREATMENT

This sort tries to correct psychiatric abnormalities by influencing the body by chemical or physical means. Its main methods are the following :

(I) Drug therapy (pharmacotherapy).

(II) Shock therapy : Electrically induced convulsions.

(III) Psychosurgery: prefronatal leucotomy.

(I) DRUG THERAPY

Two groups of drugs affecting the central nervous system will be discussed :

I – Sedatives and Hypnotics .

II – Psychotropic (psychoactive) drugs.

I – SEDATIVES AND HYPNOTICS

(1) **Sedatives :** They are for the control of over activity. anxiety and tension. The common sedatives are barbiturates (slow and long acting e.g. phenobarbitone 'luminal').

Their main disadvantage is their liability to cause diminished consciousness and sleepiness as well. Recently the newer group of drugs (tranquilizers) have replaced them.

(2) **Hypnotics :** They are drugs for the relief of insomnia. The common hypnotics are :

a) *Old hypnotics* i - Chloral hydrate (0.6 gm) ii - Barbiturates (rapid acting e.g. pentobarbital 'nebutal').

b) *Recent hypnotics :* Benzodiazepines (minor tranquilizers) e.g. nitrazepam (nogadon) and bromozepam (calmepam 3 mg).

We must remember : (1) Many patients believe that insomnia causes insanity, which is not true; reassurance must be made about this fear. (2) Some patients refuse to take a hypnotic for fear of habituation and addiction; they should be reassured by saying that the drug is necessary at the start, will be changed from time to time, will be gradually reduced and finally stopped as early as possible. (3) At the start of treatment an adequate dose to induce sleep must be given, otherwise the patient's confidence in the hypnotic will be lost.

II – PSYCHOTROPIC (PSYCHOACTIVE) DRUGS

This is a modern group of drugs that act on the psychic functions and can alter mental processes and behaviour. The following classification is based on the principal action.

(A) Tranquilizers, (ataractics) : (1) Major (2) Minor.

(B) Antidepressants and (B) Psychomotor stimulants.

Antidepressants remove depression, but do not influence the normal basic mood i.e. no euphoriant or mood elevation effect. On the other hand psychomotor stimulants have the latter effect, but are not true antidepressants.

(C) Psychotomimetics (Hallucinogens).

Close chemical relationship exists between the 3 groups (A, B & C), all have an indole-like nucleus.

(D) Mood Stabilizers : (1) Lithium. (2) Carbamazepine.

Mechanism of action of psychotropic drugs : In the brain there are two groups of monoamines related to the mental functions and consequently to the mode of action of the psychotropic drugs. These substances are excitatory transmitters in the brain and consists of (1) catecholamines i - mainly noradrenaline or its metabolic precursor dopamine ii - to a less extent adrenaline (2) indolamines : mainly serotonin (5-HT i.e. 5- hydroxytryptamine). If the level of these monoamines is altered or their action interfered with, various mental changes will arise. Mainly noradrenalline and serotonin are concerned with manic - depressive psychosis, while dopamine is concerned with schizophrenia.

Precaution : (1) Psychotropic drugs should not be administered to pregnant females, particularly during the first trimester (three months), because of their possible teratogenic effect on the foetus. (2) Also precaution must be taken in case of lactating mother, as the drugs usually pass to the breast-fed infant.

(A) TRANQUILIZERS (ATARACTICS)

These drugs have an anti-anxiety effect, thus diminish the anxiety and agitation and induce a mental state which is peaceful (emotional calmness and relaxation), without diminishing consciousness or alertness (thus not inducing drowsiness and sleep).

These drugs are called ataractics from ataraxia, meaning peace of mind. Tranquilizers are neither psychostimulants (elevate the mood), nor antidepressants (alleviate depression). On the contrary, the majority have the greatest disadvantage of aggravating a depressive state, or even inducing it.

Tranquilizers are divided into two groups, major and minor, the differences between them are the following :

(1) Major tranquilizers : are characterized by :

a) Therapeutic effect : This is double i - Anti-psychotic effect, controlling the psychotic symptoms (hallucinations and delusions) and thus they are usually used in psychoses. ii - Anti-anxiety effect, and thus they can be used in neuroses.

b) Side effect : annoying and even serious ones may develop (particularly the reversible extrapyramidal manifestations).

c) Habituation and addiction : do not occur.

(2) Minor tranquilizers : are characterized by :

a) Therapeutic effect : this is single, being anti-anxiety effect, and thus they are usually used in neuroses.

b) Side effect : annoying ones are rare and serious ones do not occur.

c) Habituation and addiction : do occur.

(1) MAJOR TRANQUILIZERS (NEUROLEPTICS OR ANTIPSYCHOTICS)

Mechanism and site of action : These drugs are called neuroleptics, the suffix 'leptic' in Greek indicates the action of taking off. They act primarily on the brain-stem; although maintaining consciousness, they inhibit impulsiveness, drive and other emotional activities. In psychoses (particularly schizophrenia) it seems that there is excess of the cerebral monoamines (particularly dopamine). These drugs act by blocking the receptors in the mesodiencephalon, central reticular formation and diffuse thalamocortical projections (their effect on the latter is responsible for the antihallucinatory and antidelusional effect).

Parallel to therapeutic effects, concomitant extrapyramidal and autonomic side effect arise in the corresponding anatomical structures. The commonest is the pseudo-parkinsonism which is explained by blocking the dopamine receptors (inhibition of the nigrostriatal neurons).

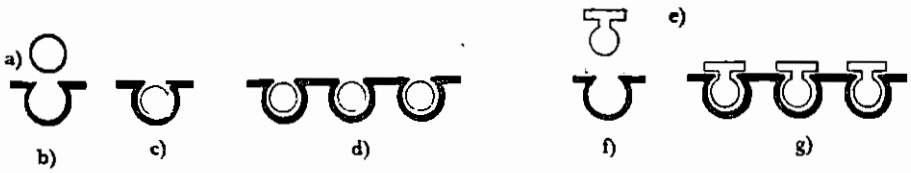


Fig. 21 : Mechanism of action of neuroleptics

Fig. 21 is a schematic representation where a) dopamine b) a free dopamine receptor c) a stimulated dopamine receptor. When the dopamine receptors are too much stimulated d) schizophrenic symptoms occur with hallucinations and delusions. The neuroleptic e) blocks dopamine receptor f) Thus the symptoms are brought under control.

Classification : There are mainly two groups I - Phenothiazines II - Non-phenothiazines.

I. PHENOTHIAZINES : Their nucleus (Fig. 22) consists of two benzene rings joined by a sulphur and a nitrogen atom as follows :

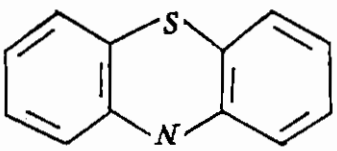


Fig. 22 : The chemical formula of phenothiazine nucleus.

There are three main classes which are distinguished according to the chemical structure of their side chains. The most common members of these and their doses are :

	Generic name	*Trade name*	*Daily dosage*
(1) Aliphatic class	a) Cholrpomazine	Largactil	75 – 1000
	b) Promazine	Sparine	75 – 1000
	c) Triflupromazine	Siquil	20 – 150
(2) Piperidine class	a) Thioridazine	Melleril	30 – 600
(3) Piperazine class	a) Perphenazine	Trilafon	12 – 48
	b) Butynylperazine	Randolactil	10 – 30
	c) Trifluoperazine	Stelazine	3 – 30
	d) Fluphenazine	Moditen	3 – 15

N.B. : As we go from above downwards, the class becomes more potent, and thus the dose becomes smaller.

II – *NON-PHENOTHIAZINES :*

(1) ***Butyrophenones class.*** The commonest are :

a) Haloperidol (serenace or safinace) : It is preferred in treatment of mania. It can be given orally or parenterally (I.M. or I.V.) in daily doses of 1.5–15 mg.

Its peculiar features are : i - has no hypotensive effect like phenothiazines, and so can be used in elder agitated patients ii - produces prominent extrapyramidal side effect, but fewer autonomic ones than phenothiazines iii - dangerous if combined with lithium therapy.

b) *Haldol decanoate :* 50–100 mg. I.M. every 2–4 weeks.

(2) *Thiozanthenes class :* a) *Flupenthixol (fluanxol)* 1.5–18 mg. b) *Clopenthizol (clopixol)* is used as decanoate or depot 200–500 mg every 2–4 weeks in chronic schizophrenia.

(3) *Other drugs :* a) *Sulpiride (Dogmatil)* 400–1000 mg./day : in addition to neuroleptic effect it has antidepressant one. b) *Pimazide (Orap)* 1–4 mg./day: its sedative action is minimal, thus used in retarded patients (negative manifestations).

Indications : The major tranquilizers are useful in the following :

(1) Schizophrenia and paranoid disorders.

(2) Mania.

(3) Acute disturbance from other causes e.g. hyperactivity, excitement, violence and aggression.

(4) Anxiety which has failed to respond to minor tranquilizers. In such cases small doses are used.

(5) In general medicine : a) as antiemetic b) to stop hicough c) to potentiate analgesics.

Contraindications : (1) Liver disease (2) Other diseases : cardiovascular, kidney, pulmonary and blood. (3) Patients with glaucoma or enlarged prostate.

Treatment procedure :

(1) Choice of the suitable drug : Although all the neuroleptics seem to be equipotent, many patients respond to one and not to the other. The reason for this is still obscure. The best advice for the clinician is to select about three drugs and to become thoroughly familiar with their actions. The drug should not be considered as ineffective before giving it in adequate dosage for one month in acute cases, and for three months in chronic ones.

(2) Dosage : The dosage range of the common neuroleptics was mentioned (p. 72). The effective dosage for each patient must be found out, since some patients require much higher dosage than others.

a) Acute cases : Start with the intramuscular route for rapid control, and after one week change to the oral route. The effective dose should be continued until the therapeutic effect (i.e. improvement) is obtained. Then reduce the dose for a maintenance one (about half the effective dose) and

continue until natural remission of the disease occurs, and this will depend upon the case under treatment (e.g. longer in schizophrenia than in mania). On stopping the drug, reduce the dose gradually (tapered or tailed off) to avoid withdrawal reaction.

If on reducing or stopping the drug a recrudescence of symptoms occurs, we go back to the effective dose for a further period.

b) Chronic cases : The drug is given orally at progressively increasing doses until an effective level is reached. Now, whether to reduce or stop the drug after a period is highly individualized matter and can not be generalized. Some chronic psychotic patients (about 50%) may require the drug for the rest of their lives.

(3) *Long acting preparations :* With the ordinary preparations the daily dosage, whether admitted orally or by injections, has to be divided and given t.d.s. To overcome this, which is tedious with chronic and excited patients, long acting preparations, which are slowly absorbed, are used.

a) *Orally :* stelazine spansule 15 mg which is effective for 24 hours.

b) *Parentrally :* depot (oily) preparations which are given i.m. and are effective for 2–3 weeks i - Trilafon given as perphenazine enanthate 100 mg. ampoule (Sherico) ii - Moditen given as fluphenazine decanoate (anatensol) 25 mg ampoule (Squibb).

Unwanted Side-effects :

(1) ***Antidopaminergic (Extrapyramidal) effects :*** They are subdivided into two groups, early and delayed (tardive).

a) *The early manifestations* are much commoner and occur few days or weeks after the administration of the drug. They consist of (Fig. 23): i - Parkinsonian syndrome (pseudo-parkinsonism). ii - Dyskinesia (acute dystonia) in the form of involuntary protrusion of the tongue, perioral spasm, oculogyric crisis, torticollis and torsion spasm iii - Akathisia (motor impatience) in the form of restlessness, fidgety movements of the legs and inability to sit still for a while.

These side-effects can be prevented by adding to the antipsychotic an antiparkinsonian drug (e.g. artane 2 mg. t.d.s.). Since they occur only in about 1/3 rd. of patients, we try gradual withdrawal of the antiparkinsonian drug 3 months after the start of the antipsychotic. If these side-effects do not occur we proceed with the antipsychotic alone; if they show themselves we go back to the antiparkinsonian drug, giving it in the minimal effective dose.

When the extrapyramidal side-effects develop: a) The antipsychotic is stopped for few days until they disappear and then we restart on a smaller dose. b) The antiparkinsonian drug is maintained and even given in a higher dose. c) The acute dystonic reaction is painful and psychologically upsetting, needing urgent interference giving i.v. 10 mg diazepam or 0.5.g pentothal. d) The akathisia may not respond to the mentioned measures and one has to add a minor tranquilizer. (e.g. diazepam 5 mg t.d.s., or B-blocker (e.g. propranolol 40–80 mg daily).

Thioridazine (melleril) produces the fewest side-effect.

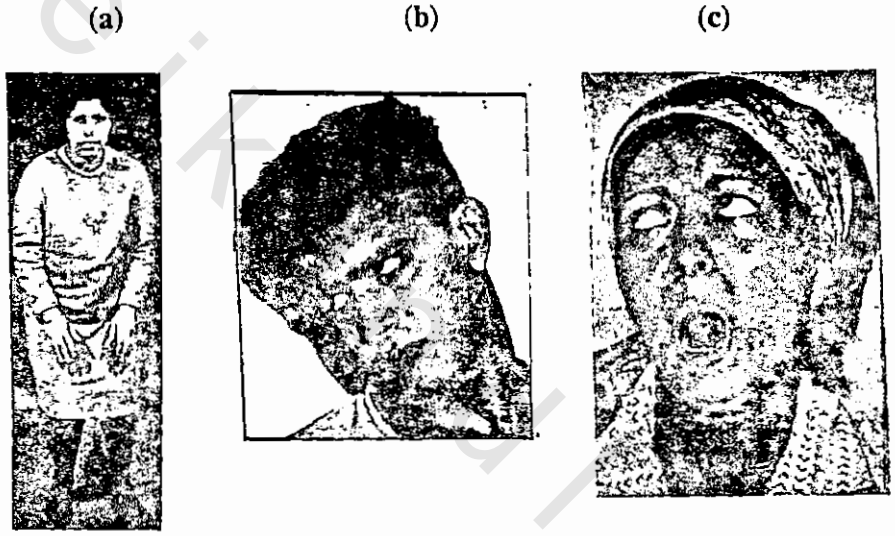


Fig. 23 : Extrapyramidal manifestations a) Parkinsonian syndrome. b) Dystonia (torticollis with oculogyric crisis) c) Dystonia (protrusion of tongue, perioral spasm and oculogyric crisis).

b) *The delayed (tardive) dyskinesia:* It is not common and occurs usually after about 2 years from the administration of the antipsychotic in big doses, usually in patients over 50 years (usually females), the dyskinesia affects especially the oro-facial structures, but also the trunk and limbs may be involved in choreo-athetiod movements.

The mechanism is probably that the antipsychotic drug induces dopamine receptor blockade in the basal ganglia resulting in a state of denervation hypersensitivity.

The treatment is a problem, (1) Stop antipsychotic and anticholinergric drugs. (2) Try i - dopamine receptor antagonists e.g. holoperidol ii - dopamine depleting agents e.g. tetra-benazine (Nitroman) 25–200 mg daily iii - lithium.

Prophylactically he neuroleptic and anticholinergic administration should be kept to a minimum in long term antipsychotic therapy.

(2) ***Anticholinegic effects :*** These include a) dry mouth b) blurred vision c) urinary hesitancy or retention d) constipation which may go to ileus e) reduced sweating f) precipitation of glaucoma.

(3) ***Antiadrenergic effects*** : These include a) postural hypotension with reflex tachycardia b) inhibition of ejaculation c) nasal congestion d) hypothermia in the elderly.

(4) ***Other effects*** :

a) *Psychological :* leading to depression and increased bizarre dreaming.

b) *Convulsive seizures (grand male) :* by lowering the seizure threshold.

c) *Cardiac :* arrythmias and ECG changes.

d) *Endocrine and metabolic :* gaining weigh, galactorrhea and amenorrhea.

e) *Allergic :* skin rash, photosensetivity with accumulation of pigment in the skin, cornea and lens.

f) *Rare adversive reactions :* i - cholestatic jaundice ii - agranulocytosis.

(5) ***Neuroleptic malignant syndrome :*** It is a rare acute complication, occurring usually but not invariably in the first ten days of treatment and is potentially fatal. The cause is unknown, probably excessive dopaminergic blockade. The clinical picture includes the rapid onset of severe symptoms of: i - extrapyramidal movements ii - mental confusion and impaired consciousness iii - autonomic disturbances as hyperpyrexia and excessive sweating and salivation. Treatment is symptomatic and bromocriptine, amantidine and L-dopa may help.

(2) MINOR TRANQUILIZERS (ANXIOLYTICS)

Mechanism and site of action ; They produce direct blocking action on the synapses of neurons of thalamus and limbic system. Consequently the site of action is less diffuse than that of the major tranquilizers.

Classification : There are several groups.

I – Bezodiazepines : Many are available, varying in potency and duration of action (short-acting and long-acting). The trade name derivatives and dosage given t.d.s. are: librium (diazepoxide) 5 – 10 mg.; valium (diazepam) 2 – 10 mg.; serepax (oxazepam) 10 – 15 mg.; ativan (lorazepam) 1 – 2 mg.; lexotanil (bromazepam) 1.5 – 3 mg.; xanax (alperazolam) 0.5 – 3 mg.

II – Non-benzodiazepines :

(1) ***Old : Meprobamates*** : They are not used now (e.g trunquilan, equanil 200 – 800 mg.)

(2) ***New : Buspirone (Buspar)*** 5 – 10 mg t.d.s It has antianxiety effect only (no antispasmodic or anticonvulsant effect). Its advantage over benzodiazepines is non production of i - sedation ii - drug dependence.

Benzodiazepines

Action ; They have three actions, (1) Antianxiety (tranquilization). (2) Antispasmodic (muscle relaxation) (3) Anticonvulsant (antiepileptic).

In a large dose they have a hypnotic action.

Mechanism of action : Specific receptors for benzodiazepines are discovered in the brain. They are functionally linked to gamma-amino-butyric acid (GABA) which is an inhibitory neurotransmitter. Benzodiazepines agent further this action of GABA.

Indications : (1) Short term treatment of anxiety and insomnia and withdrawal treatment of drug addiction. (2) Epilepsy (fits and status epilepticus). (3) Muscle spasticity.

Contraindication : Respiratory insufficiency (due to muscle relaxation effect).

Treatment procedure : Begin by a small dose t.d.s., increase gradually until an effective dose is reached. This should be continued for not more than 6 – 8 weeks for fear of developing dependence. Then stop the drug gradually for fear of developing withdrawal symptoms. If anxiety is still present one can use as a small dose of a neuroleptic, or a tricyclic antidepressant.

Unwanted side - effects : consist of:

(1) Increased tolerance, habituation and addiction are significant and may result from chronic administration. In such cases sudden cessation may lead to severe withdrawal symptoms (acute delirious state and convulsions).

(2) Non-serious side effects consists of a) C.N.S. : drowsiness, apathy, ataxia and giddiness b) Cardiovascular : hypotension and syncope. c) Gastrointestinal : nausea and constipation d) Skin rashes (allergic reaction).

(B) ANTIDEPRESSANTS

The following points are important to remember when dealing with antidepressants :

(1) They can act on depression of any type whether endogenous or reactive.

(2) They do not have a favourable effect on schizophrenia, and may even aggravate it . Therefore on must try to arrive at the correct diagnosis before giving such drugs.

Classification : Antidepressants are divided into groups.

I – Monoamine Oxidase Inhibitors (M.A.O.I) :

	Genetic name	Trade name	Daily dose mg
(A) Hydrazine group	(1) Nialamide	Miamide	150 – 250
(B) Non-hydrazine	(2) Tranylcypromine	Parnate	20 – 40

II – Cyclic Compounds :

(A) Tricyclics (Dibenzepines)			
	(1) Imipramine	Tofranil	75 – 250
	(2) Amitriptyline	Tryptizol	75 – 150
(B) Tetracyclics (Dibenzobicyclo - octadienes)			
	(1) Maprotiline Hcl.	Ludiomil	75 – 450

III – Newer compounds :

(A) Seretonergic drugs (serotonin re-uptake inhibitors)			
	(1) Sertraline Hcl.	Lustral	50 – 150
	(2) Fluvoxamine maleate	Faverine	50 – 150
	(3) Citaloprami hydromidum	Cipram	20 – 80
	(4) Fluoxetine Hcl.	Prozac	20 – 80
(B) Dopaminergic drugs (dopamin reuptake inhibitors.			
	(1) Amineptine Hcl.	Survector	100 – 300

Mechanism and site of action : Certain monoamines (e.g. serotonin and noradrenaline) have an important role as cerebral transmitters in those brain structures which are important in the control of mood (mainly the limbic lobe and especially the hypothalamus). When the concentration of these monoamines falls at receptors of postsynaptic neurons depression results, and when increases mania results.

Depression is relieved (i.e. mood is elevated) when the concentration of these monoamines increases. The mode of action differs. (1) Monoamine oxidase inhibitors by inhibiting the destruction of the monoamines in the nerve terminal storage vesicles by the process of monoamine oxidation (2) Cyclic and newer compounds by inhibiting the reuptake of the monoamines neurotransmitters by presynaptic neurons (nerve terminal storage vesicles) (see Fig. 24).

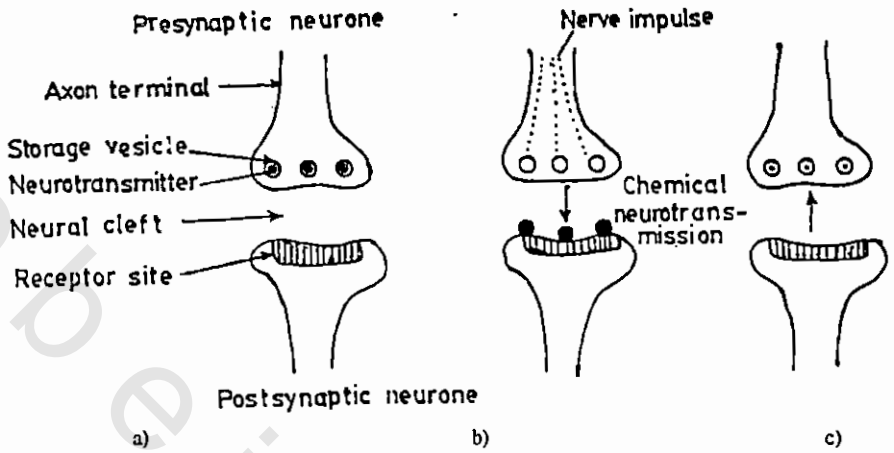


Fig : 24

Diagram of two neurons (pre and post synaptic) with a synaptic cleft. a) Before the nerve impulse b) with the nerve impulse in the presynaptic neuron, and chemical neurotransmission through the synaptic cleft to the post synaptic neuron c) Reuptake of the neurotransmitter by the presynaptic neuron.

Treatment procedure :

(1) Induction phase : start with small dose, increase it gradually to reach the effective dose within one weak, (2) Therapeutic phase : this dose is continued until improvement is obtained, usually for 6 – 12 weeks according to the case (3) Maintenance phase : the dose is then reduced to a maintenance one (about half the effective dose) which is continued until recovery occurs (usually for weeks or months according to the case). After recovery, and to prevent relapse the antidepressant should be continued for at least 6 months; the longer the patient has been depressed, the longer the drug should be continued, even up to a year or more. On stopping the drug, the dose has to be reduced very gradually (tapered or tailed off) to avoid withdrawal reaction, leading to nausea, anxiety, sweating, and insomnia. (4) If relapse occurs when the dose in reduced, the former dosage should be restarted for at least a further 3 months before lowering it for a second time.

I – Monoamine Oxidase Inhibitors (M.A.O.I.)

This group has a bad reputation because : (1) The hydrazine group is a hepatotoxic. (2) Their interaction with (a) foods : especially cheese b) drugs : especially tricyclic antidepressants; such interaction may cause a hypertensive crisis, which is occasionally fatal. For these reasons many psychiatrists do not use them, and some only do so when other antidepressants have failed. If a tricyclic has failed, the patient must stop it and wait for 3 days before starting the M.A.O.I, to allow excretion of the former, so avoiding interaction between the two antidepressants.

II – Cyclic Compounds

This group is the commonest in clinical use, as it is the cheapest.

i – Tricyclic compounds : Chemically their molecule includes 3 cyclical groups and they are similar in structure to the phenothiazine derivatives. Therapeutically all have antidepressant effect; in addition to this amitriptyline has a strong tranquilizing effect. Consequently the 1st. (tofranil) is given in retarded depression, and the 2nd (tryptizol) in agitated depression.

ii – Tetracyclic compounds : Maprotiline HCl (ludiomil) has both antidepressant and tranquilizing effects and thus it is effective in both retarded and agitated depressions. It differs from the tricyclics in the following : (1) The onset of action is more rapid i.e. within few days. (2) It can be administered once a day (at bed time) which simplifies the treatment, with as good results as fractional doses (t.d.s.) (3) It is less cardiotoxic and thus can be used in the older age group with cardiac disease.

Unwanted side-effects :

(1) Autonomic nervous system (excluding cardiovascular) : Anticholinergic side effects may cause dry mouth, blurring of vision, delayed micturition, constipation and increased sweating. On the whole these side effects are mild and tend to become less after the first few weeks.

(2) Cardiovascular : tachycardia, postural hypotension (causing dizziness and fainting), ECG changes and ventricular arrythmias.

(3) Neuropsychiatric : a) Epilepsy may result. (since cortical excitability may be increased). b) Retarded depression may be converted into hypomania; in such case the drug is replaced by a neuroleptic.

(4) Others : skin rashes, cholestatic jaundice and agranulocytosis.

iii – *Newer Antidepressants*

Advantages **:** (1) Stronger antidepressant effect. (2) Rapider onset of action. (3) Can be given in a single dose (thus helps compliance of the patient). (4) Relatively less unwanted side-effects (mainly anticholinergic and cardiotoxic). (5) More safe with over dosage (accidental or suicidal attempt).

Disadvantage : They are expensive, and many patients can not buy them.

(B) PSYCHOMOTOR STIMULANTS

These drugs are not used much due to their serious side effects. The best known is *caffeine* which is a mild stimulant. The powerful ones are the *amphetamine group* (5 – 30) mg daily). The latter are no longer used in depression as they readily give rise to dependence. Their only indication are in : (1) Narcolepsy as they combat sleep. (2) Hyperkinetic disorder of childhood; it is a pharmacological paradox that a stimulant combat hyperactivity.

(C) PSYCHOTOMIMETICS (HALLUCINOGENS)

These drugs (e.g. mescaline and lysergic acid) produce psychotic changes resembling those occurring in certain psychoses. They will be discussed with drug addiction. (p. 173).

(D) MOOD STABILIZERS

I – Lithium :

Action : Lithium is a drug which proved to have the following specific effects on affective disorders.

(1) Prophylactic action on manic and depressive phases i.e. it prevents the recurrence which is common in these disorders. The action appears after a considerable time, thus the drug must be given for an average period of 5 years.

(2) Therapeutic action on manic phase.

Mechanism of action : is not definitely known. It probably acts by replacing the intracellular Na. Since there is no lithium pump, the ion remains as a non-functionally substitute. It thus interferes with membrane electric transport mechanism, and subsequently reducing the excitatory neurotransmitters of the brain (mainly noradrenaline and serotonin).

Dosage : It is given as lithium carbonate tablet (priadel) of 400 mg. The dosage is about 1 – 3 tablets daily which can be given together (e.g. in the morning).

It should only be used if the blood level can be carefully controlled, at first weekly for one month, then monthly for one year, and finally every 3 months. The sample should be drawn 12 hours after the last dosage. A level of 0.5 – 1 m. Eq/l (milli equivalents per litre) serum should be aimed at. It is essential to start with a small dose and increase it slowly.

Side effects : (1) Gastrointestinal e.g. nausea, vomiting and diarrhea (2) Nervous e.g. tremors, muscular weakness, vertigo and drowsiness. (3) Hypothyroidism after prolonged use.

Contraindication : (1) Renal diseases and conditions calling for a low salt diet as heart failure. (2) Pregnancy and lactation.

II – Carbamazepine *(Tegretol 200 – 500 mg tablet) :*

It is an anticonvulsant. It is an alternative to lithium for prophylaxis of affective disorders, being better tolerated in some patients. The dosage is 1 –

2 tablets twice daily. Side effects include; (1) gastrointestinal disturbances (2) nervous as drowsiness, dizziness and visual disturbances.

In resistant cases, lithium and carbamazepine can be used together.

(II) SHOCK THERAPY

The idea that sudden shock might bring a mentally deranged person to his senses is a very old one. One of the earliest was to apply hot iron bar to the occiput, or to knock the patient unexpectedly backwards into deep water. Nowadays, shock treatment is carried out by modern means. The ideas is to inflict an assault upon the brain, in the hope of bringing to an end its morbid activity, and restoring it tc a normal mode of function. The modern means is electricity. The mode of action is unknown; thought to involve neurotransmitter responses at the cell membrane.

Electro Convulsion Therapy (E.C.T.) :

Preparation of patient : The stomach of the patient must be empty (5 hours after a meal), and be must empty his bladder and take off artificial teeth. Modern E.C.T. is carried out under a short-acting general anaesthetic, and a muscle relaxant is given to reduce the intensity of the fit (i.e. soften it). Premedication with atropine is generally used to dry secretions and lessen the incidence of arrythmias and vagal over stimulation (1 mg is usually given i.v. with the anaesthetic). A mouth gag is put to avoid biting the tongue.

Technique : In E.C.T. (Fig. 25) an electrical current is passed through the head and a major epileptic fit is induced. The two electrodes are tightly applied over the temples. Two nurses must support manually the shoulders and hips of the patient. Then an electric current of 100 – 150 microvolts is passed for a duration of 0.1 – 0.5 second.

Unilateral E.C.T. : Application of the current unilaterally to the non-dominant hemisphere is found to produce less undesirable side effects (confusion after the sitting and amnesia for few weeks). However the patient will need a greater number of sittings.

Fig. 25 : ECT given to a patient.

Organization of treatment : E.C.T. can be given to out-patients. The number of shocks and spacing depend upon the diagnosis and the response of patient. Ordinary cases require the treatment twice or thrice per week, while acute psychosis may need the treatment daily. The average number of shocks is 8 – 12. If there is no improvement after that number, we must not continue.

Indications : The main indications are :

(1) Depressive states of endogenous type, it is particularly valuable in the older age group (involutional depression).

a) It is started with, in addition to drug therapy, in severe depression with danger of suicide, marked agitation, or retardation.

b) It is given, later on, to depression not responding to drug therapy.

(2) Manic states which are drug resistant (but the response of the manic state is less than the depressive state).

(3) Schizophrenia which is resistant to drug therapy, particularly the cases with depression, inhibition (stupor), or excitement.

(4) Schizo-affective psychoses : especially the depressive form.

Side-effects :

(1) Confusion : A mild transient one after the shock is frequent.

(2) Memory impairment : a) Immediate : a brief retrograde amnesia as well as anterograde loss of memory for up to 30 minutes after the fit is common. b) Delayed : if E.C.T is repeated at short intervals, this amnesia builds up; in a few week, but it may persist longer, or rarely indefinitely.

(3) Change of the clinical picture : a) Depressive state may be changed into mania. b) Schizophrenic retardation may be changed into excitement.

(4) Skeletal complications : The proper methods of bodily control during the fit usually avoid their occurrence. a) Fractures which usually occur in muscular individuals i - compression fracture of the vertebrae which are usually symptomless ii - fractures in the upper part of femur and humerus. b) Dislocations in i-jaw ii - shoulder.

(5) Death : It occurs very rarely with the fit, due to acute cardiac failure resulting from cardiac anoxaemia or vagal irritation.

Contraindications : There is no absolute contraindication and E.C.T. can be given to old age, during pregnancy and even to cases with myocardial disease. The only two contraindications are (1) intracranial space occupying lesion (2) recent myocardial infarction.

(V) PSYCHO SURGERY

Psychosurgery is brain surgery carried out to relieve suffering by changing (1) mood or (2) behaviour.

History : It started with prefrontal leucotomy. In this operation a burr hole is made, on either side, in the temporal region and a spatula forceps is introduced with the object of severing the thalamo-frontal fibers. The operative mortality is only 3%, the main danger being cerebral hemorrhage.

Effect : Put in crude terms, the results of the operation, which was used mainly in schizophrenia and obsessions are (1) To reduce emotional tension (the disturbing delusions, hallucination and obsessions lose their emotional warmth and no longer bother the patient). (2) To release inhibition (the social ethics are not respected e.g. the toilet habits and the patient my urinate in the sitting room). The valuable effects being dependent upon the reduction of tension, and the unfortunate results being dependent upon the release of inhibitions.

Modified operations :

(1) *Restricted orbital undercutting :* (Fig 26). This operation is used in our faculty. It has got the following advantages : (1) The use of open technique and so no complications (particularly hemorrhage) result. (2) The shift from an extensive cutting to a restricted one, consisting of undercutting the white matter of the orbitofrontal surface. This operation was found to be of some value, particularly in the chronic obsessional neurosis.

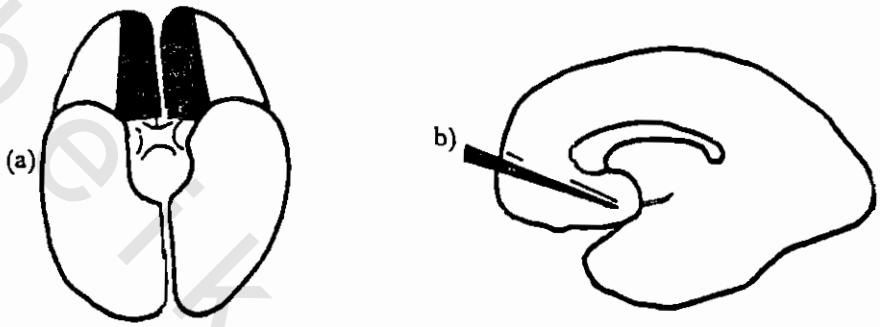


Fig. 26 : Restricted orbital undercutting.

a) The areas of orbital cortex undercut.

b) The extent of the undercutting the white matter in the frontal lobe.

(2) *Stereotoctic tractotomy* : By the stereotactic technique, a localized brain lesion is created using either radio-active rods (Yttium 90), cutting, freezing or thermocoagulation method. The position chosen for the lesion depends on the psychiatric diagnosis. The procedures usually used are :

a) Subcaudate tractotomy for affective disorders.

b) Limbic leucotomy for obsessive-compulsive disorders.

c) Amygdolotomy for control of aggression.

Unwanted effect : epilepsy develops in 2% of patients, but can be controlled by anticonvulsants.

Indications : Psychosurgery should not be advised before all other methods of treatment have been employed. Since the introduction of psychotropic drugs its use has nearly stopped. It is used in the following chronic conditions :

(1) Chronic intractable obsessional disorders.

(2) Severe chronic agitated depressive disorder in elder patients.

(3) Chronic anxiety neurosis.

(4) Schizophrenia : but no clear evidence of efficacy.

PART II

COMMON MENTAL ABNORMALITIES

NEUROSES

I – ANXIETY STATE (NEUROSIS, DISORDER)

Anxiety, which means fear of danger, is a symptom that may occur in any psychiatric illness (neurotic or psychotic). However, in many conditions, anxiety may be observed in a more or less pure culture, and such conditions we call anxiety state.

Anxiety state is the commonest of all the neuroses, and fortunately the easiest for treatment.

Physiological anxiety : All human emotions (e.g. fear, grief etc.) are accompanied by physiological (somatic or bodily) changes. The emotion of fear (e.g. the stress of seeing a snake) is associated with physiological changes that represent preparation for action (to fight against an enemy or to fly away of it). This condition may be regarded as a normal and appropriate response to stress (including the anticipation of stress e.g.as when you go to a place known to have snakes), which rapidly subsides with removal of the stress. Therefore, physiological anxiety helps in efficient preparation of the individual for the situation of stress.

Pathological anxiety : On the other hand, pathological anxiety denotes a condition in which an exaggeration of this 'preparation for action' or 'fear mechanism' is shown. The use of the term anxiety state (neurosis) is only justified if the anxiety reaction (1) either provoked by an inadequate cause or (2) if provoked by an adequate cause, it is abnormally a) severe or b) prolonged.

An example is the fear of the student before the examination : (1) It is physiological when it stimulates him to study hardly (2) it becomes pathological when it causes to him difficulty in concentration, restlessness and insomnia.

Etiology : In the genesis of an anxiety state there are usually some or all of the following factors :

I – Hereditary (constitutional) factor :

(1) Morbid heredity is not rare; about 20% of parents of patients have or had an anxiety state.

(2) Premorbid personality is usually of the anxious type (p. 29), such personality may be the result of inherited handicap and faulty upbringing (morbid family environment).

II – Acquired (predisposing and precipitating) factor : These are mainly (A) psychosocial factors, but (B) physical factors (p. 16) may play a role. **The former will be discussed :**

(1) *Morbid family environment during childhood,* such as may be produced by anxiety of parents (particularly mother), is not rare during childhood, and its effect may by mistaken for heredity.

(2) *Precipitating or determining factors (the stress or load experienced).*

a) *External stress (p. 15);* To decide that it plays a role in the etiology see p. 37.

b) *Internal stress (mental conflict) :* (p. 16) During war time the conflict is between self-preservation instinct and herd motives and its traditions. However there are many examples arising in civil life, such as domestic, business or religious difficulties.

Age and Sex : Anxiety state is commonest in early adult life, but can occur at any age. Both sexes are equally affected.

Psychopathology (Fig. 27) : Some believe that the origin of anxiety is a sexual or aggressive misconduct or wish in early life (e.g. sexual fantasy towards the parent of the opposite sex or a wish for death of one of the parents). Such offending complex is associated with much fear and anxiety and hence it is repressed in the unconscious mind. When, for one reason or other, the repressing force (censor) gives way the anxiety will penetrate and manifest itself in the conscious mind.

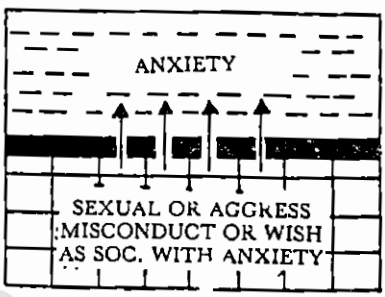


Fig. 27 : Psychopathology of anxiety state.

Classification of Anxiety disorders They are classified into groups :

(A) Generalized anxiety disorder (including panic disorder and organ neurosis.

(B) Phobic anxiety disorder.

(A) GENERALIZED ANXIETY DISORDER

Clinical picture : Emotions affect both mind and body. The situation of stress produces both mental manifestations (fear) and physical or bodily manifestations (preparation for action). Consequently anxiety state (neurosis) shows both groups of manifestations as follows :

I – MENTAL MANIFESTATIONS : They consist of fear and the manifestations secondary to fear.

(1) *Fear of all kinds :* insanity, bodily illness and death. In many patients the fear is not clearly focussed on any special object, but it is a vague one of unknown origin (free-floating anxiety). The fear is shown in the facial

expression and posture (Fig. 28-a); the patient sits on the edge of the chair during the interview and describes himself as feeling tense, unable to settle, with a lot of worrying thoughts.

(2) *Secondary to the fear there will be* a) Difficulty in concentration. b) Irritability, excitability and restlessness.

Fig. 28 : Anxiety state a) Feeling of inner tension b) Acute attack of panic.

Patient can not bear to hear children playing or persons talking loudly, and jumps at an sudden noise. The extreme restlessness may show itself in the constant performance of small movements, such as wringing the hands, pulling hairs and picking sores. c) Easy fatiguability (neurasthenia) and inability to do sustained effort (physical or mental) and loss of self-confidence. d) Insomnia in the form of difficulty in getting off to sleep, turning restlessly for hours (i.e. initial insomnia); then the sleep is interrupted by terrible dreams, and the patient wakes up unrefreshed.

II – PHYSICAL MANIFESTATIONS : They form an integral part of the emotional experience (fear). The center for emotions is the hypothalamus which controls a) the autonomic nervous system (sympathetic and parasympathetic) b) the endocrine system via its effect on the pituitary gland (the captain of the endocrine team). During fear there is marked stimulation of the hypothalamus and this leads to an increased output of adrenaline (the hormone of suprarenal medulla). The physical manifestations can be easily remembered since they are similar to the 'adrenaline syndrome'.

'Adrenaline syndrome' consists of : increase of the heart rate and force, rise of blood pressure, widening of palpebral fissures and dilatation of pupils, dryness of mouth, tremors and changes in the skin (sweating, pallor and contraction of erector pilae muscles causing goose skin in man and erection of hair in animals).

Also there is increase in the skeletal muscle tone since adrenaline facilitates the neuromuscular transmission.

Autonomic hyperactivity involves not only the sympathetic but also the parasympathetic. The pattern of the somatic manifestations of anxiety in any given patient is specifically characteristic for him. In one patient the hyperactivity is mainly sympathetic (showing e.g. tremors), in another mainly parasympathetic (showing e.g. diarrhea and frequency of micturition due to overactivity of smooth muscles).

Another effect of continued fear is to stimulate the secretion of thyroxin. It may be that this is partly responsible for many of the physical manifestations which occur and which in many aspects resemble those of thyrotoxicosis.

On examination the patient may show some or all of the following manifestations which are due to the autonomic hyperactivity (mainly adrenaline syndrome).

(1) *Nervous system :* Cephalgia or head discomfort (due to muscular tension), throbbing headache (due to hypertension with change in the tone of cranial vessels i.e. vasoconstriction followed by rebound vasodilatation), dizziness and blurred vision (due to dilated pupils), tremors, weakness of the limbs, unsteadiness or ataxia, exaggerated tendon reflexes (due to increased muscle tone), and vague pains and paraesthesia .

In addition to tremors, the patient frequently reports a trembling on the inside which is a subjective sensation and not an objective sign.

(2) *Alimentary system :* dryness of mouth (patient usually licks his lips and moistens his tongue, anorexia leading to loss of weight, dyspepsia, epigastric discomfort. flatulence and diarrhea.

Mechanism of dyspepsia : i – In most glands the secretion is inhibited due to vasoconstriction of their blood vessels by adrenaline. ii – Adrenaline also inhibits the tone and mobility of the gastrcintestinal smooth muscles.

(3) *Cardiovascular system :* palpitation (due to increase of heart rate), precordial pain (over the area of heartbeat and not retrosternal as in coronary cases (due to increase of heart force), and feeling of fainting.

(4) *Respiratory system :* sense of oppression in the chest and of choking or suffocation (due to muscular tension). Rapid shallow breathing, and sometimes with frequent deep sighing which may induce symptoms of hyperventilation tetany.

(5) *Urinary system :* frequency of micturition (overactivity of plain muscle).

(6) *Genital system ;* seminal emissions, premature ejaculation and impotence in the male; disturbance of menstruation in the female.

(7) *Skin changes :* excessive sweating (typically from the palms, axillae and forehead), pallor and lowered skin temperature with cold sensation (due to vasoconstriction).

Self-observation : Anxiety manifestations are readily increased by self-observation and the physical symptoms are often misinterpreted by the patient as evidence of physical disease. This will lead to more fear, and thus a viscous circle develops (e.g. fear ↔ palpitation).

Other types of clinical picture : Apart from the ordinary type of anxiety state which was just described, the following types may be seen :

(A) Acute anxiety state or episodic anxiety (Panic anxiety disorder) : Here anxiety occurs in recurrent attacks of severe fear of sudden onset, unpredictally, usually for minutes though sometimes longer. During the episode (Fig. 28 - b) the patient may rush out of the room or house and shows marked physical symptoms : dyspnea with hyperventilation, palpitation, choking, tingling and depersonalization or derealization . There is extreme fear of dieing, or loosing mind or consciousness. Taking the history, the first attack can often be traced back to some terrifying experience (e.g. seeing a traffic accident. After that attack the patient gets anticipatory anxiety e.g. fear of new panic attacks. The patient with recurrent or episodic acute anxiety usually merges into chronic anxiety state.

Mitral valve prolapse is occasionally associated with panic anxiety disorder.

(B) Chronic anxiety state : Sufferers from episodic or recurrent anxiety (whether of the ordinary or acute type) are seldom completely free in between their attacks. The same manifestations, though generally milder in intensity, continue for long periods and so the patient is continuously tense, irritable, easily fatigued and unhappy.

N.B. : Psychiatric illness is termed chronic if it continues for more than two years.

(C) Organ neurosis : It is important to bear in mind that the generalized somatic manifestations of anxiety state are rare. It is more common for anxiety state to present itself with what we call an 'organ neurosis'. This term is used when (1) The patient's complaint is limited to one or other of the physical (somatic) manifestations accompanying the anxiety state e.g. dyspepsia (gastric neurosis), palpitation (cardiac neurosis or effort syndrome) and mucous colitis (intestinal neurosis). (2) The patient may not complain spontaneously of anxiety (fear) at all, although he will usually admit this if asked, not infrequently saying that it is a natural consequence of the physical disease (e.g. nervous, cardiac or respiratory), from which he suffers (according to his belief).

The physician is apt to fall in the same mistake as the patient, and to believe that the complaint is due to some physical disease. This is one of the commonest errors in diagnosis, that can be avoided by careful history taking, which shows that the condition is related to an emotional disturbance.

The reason why emotions (e.g. anxiety) may find a different organic expression in different patients are :

(1) Constitutional predisposition : i.e. the individual is born with a weak system or organ, which has a low threshold for emotional stimuli. It is found that psychogenic headache and dyspepsia run in families.

(2) Acquired predisposition as the result of disease or injury : Thus bowel disturbances are common in those who suffered previously from dysentery (e.g. Bilharzial type followed by spastic colon).

Complications and Sequelae :

(1) *Depression :* Anxiety state is often associated with depression. It is observed that anxiety and depression are related to each other in the same way as fear and grief.

An anxious individual usually has no hope of recovery and feels sad; a depressed individual usually expects to suffer and becomes anxious.

(2) *Hysteria :* Anxiety state may be complicated and prolonged by a hysterical reaction (mechanism). Clinically it is common to see a) a mild anxiety state developing as a result of a stress b) then the manifestations are prolonged by a hysterical mechanism to escape from the continuation of the stress. (e.g. to remain in hospital to avoid going to work where there is stress).

Anxiety manifestations are the result of stress; they are physiologically purposive (preparing the body for action e.g. the tachycardia); they are not personally purposive like the hysterical manifestations (which serve a purpose for the person e.g. the arm paralysis of the soldier during the battle with subsequent hospitalization).

Diagnosis :

(1) *Organic disorders :* It is very important to distinguish an anxiety state from an organic disorder, especially when the patient complains mainly of physical (somatic) manifestations. The positive and negative approaches (angles) of diagnosis have to be followed (p. 3) a) The positive angle (by good history taking) will elicit evidence of anxiety following a stress. b) The negative angle (by thorough physical examination and appropriate investigations when indicated) will exclude organic disorders.

Thyrotoxicosis : The physical signs in anxiety state are very similar to those of thyrotoxicosis. In many cases it is possible to differentiate by careful history taking and examination. The point to bear in mind is that in anxiety state (1) the mental manifestations

are much more pronounced and are the result of some definite mental stress (2) the pulse rate is normal during sleep.

(2) *Other psychiatric disorders* : The differentiation is usually not difficult.

a) Neuroses : reactive depression, hysteria and obsessional neurosis : In anxiety state, depressive, hysterical and obsessive manifestations may be present, but the differentiation from such disorders can usually be made by the totality of the picture. In anxiety state, its fundamental manifestations are dominating the scene.

b) Psychosis : endogenous agitated depression : In it the degree of agitation and anxiety may be so marked as to lead to a wrong diagnosis of anxiety state. However a good history will reveal the underlying severe depression, with feeling of unworthiness (self-depreciation), guilt, self-blame and the serious suicidal wishes (while the patient with anxiety is afraid of death).

Depressive state : The differentiation of anxiety state from depressive state (mainly endogenous type) may be difficult, indeed in some cases impossible, for the reason that the two are connected by an almost continuous series of clinical gradation, so that there is no definite line of demarcation between them. The following points may help in differentiation:

(1) Mood changes : In anxiety state, anxiety is more than depression and is the first complaint. In depressive state, depression is the dominating symptom, the anxiety or fear present can be traced to the patient's brooding and attempt to find an explanation for feeling of depression.

(2) Precipitating cause : It is usually present in anxiety state and is often lacking in depressive state, which may arise spontaneously.

(3) Environment : Change of environment may produce improvement in the anxiety state, while in the depressive state the patient is so absorbed by his misery that he is unaffected by his environment.

(4) Insomnia : In anxiety it is difficulty in getting to sleep; in depression it is early waking.

(5) Self-image : In anxiety it is normal ; in depression there is self-depreciation.

(6) Bowels : In anxiety diarrhea is usual; in depression constipation is common.

Prognosis : It depends upon the items we previously discussed (p. 54). In general, the anxiety state of acute onset and short duration, occurring in a relatively young patient with a good premorbid personality, as a result of severe emotional stress, offers the best prognosis.

The case with a life time manifestation, in which it is hard to determine when the illness really started, the recent manifestation being just an exacerbation of what has been habitual, has a poor prognosis. Remission of the present complaint may be obtained, but permanent well being will not be achieved.

Treatment :

I – History taking : The first therapeutic step is taking of the history. If this is done patiently and thoroughly, the patient feels that interest in his case is being taken and his problem is being understood.

II – Physical examination : A thorough examination should then be undertaken (and is followed by appropriate investigations when indicated).

Investigations which are believed to be necessary must be planned from the start and quickly carried out. The pernicious habit, of just having one more investigation, must be avoided, since it will destroy the confidence of the patient in his treating doctor and in himself (believing that his illness is an undiagnosable one).

Such procedure will a) Convince the patient that the doctor has really examined and investigated his case and not merely 'talked' to him b) As there is often fear of physical disease, the doctor will be able to reassure the patient that there is no evidence of such disease.

III – Psychological treatment : The following points must be clear : (1) The basis of the treatment must be psychological, and though somatic and environmental therapy may be used, they are an addition to, and not a replacement of, psychotherapy. (2) Simply informing the patient that there is nothing wrong with him, or that he must pull himself together, or even telling him that his difficulties are psychological, all these are fruitless.

(A) Minor : The history being obtained in details, it is now the task of the doctor in collaboration with the patient to correlate the chronological development of the symptoms with the events of his life (or more strictly with the mental effects which have accompanied them). It is easy to take the most prominent symptom or symptoms, and to carry the patient back over history to their first development. Then he is asked to recall, as far as possible, all that happened at that time. Often, at first, he will deny that anything has occurred. But usually a little later, he will remember; the original question having set a train of thoughts going on. He will discover for himself that his symptoms arose at a time of emotional stress.

When the somatic symptoms are the prominent ones, a satisfactory approach is the following :

(1) Reassurance that there is no evidence of organic disease as shown by the negative thorough physical examination. The patient then asks why he has symptoms?! At this stage the patient commonly jumps to the conclusion that the doctor believes them to be 'imaginary'. Therefore the doctor must tell the patient that his symptoms are 'real'.

Before going on to explain the origin of the symptoms to the patient it is well to discover a) What are his views and theories about them? b) What he has been taught by other doctor?

(2) Explanation about the genesis and mechanism of the symptoms is given, so that the patient will find a reason for his symptoms. We start by talking to the patient about the influence of emotions on bodily function. This is best done by giving examples, thus palpitation with fear does not indicate that the heart is diseased, vomiting with disgust does mean that one has gastritis, and frequency of micturition before an examination is not diagnostic of cystitis. Such examples of everyday experience enable the patient to grasp the principle that emotional disturbance can produce bodily symptoms.

Then the patient is reminded how the symptoms arose at a time of emotional stress. In this way, he can be led to see that there was a reason, but of a kind different from what he has believed (physical disease).

Usually the emotional tension of the patient is lessened gradually, and he needs a series of sittings (of about quarter of an hour once weekly) in order to gain greater insight into the nature of his manifestations, and to be cured.

When the anxiety is not primarily of bodily disorders, but of certain situations (e.g. the dark or crowded places), it will often be found that the patient it really afraid of a recurrence of an anxiety attack which the patient has once suffered in similar circumstances. Cure often rapidly follows the patient's appreciation of the true nature of such situations. Also behaviour therapy (p. 68) is indicated in such cases.

(B) Major : When the symptoms are not accounted for in terms of external situations (stress) and appear to be mainly internal, major psychotherapy (p.62) is needed to reveal to the patient his unconscious mental processes.

IV – Somatic treatment :

(1) Drugs a) Minor tranquilizers (p. 72) which are beneficial by having antianxiety effect (tranquilization) and antispasmodic effect (muscle relaxation). They should not be used for more than 1–2 months because of the risk of dependence. b) Tricyclic antidepressants (usually imipramine) because they have direct anxiolytic action with no risk of dependence. We usually start with diazepine and then shift to tofranil. c) Recently buspirone 5 mg tds, an anxiolytic with no risk of dependence, is used.

d) Beta-blockers which act by blockade of beta-adrenoreceptors. Their benefit is ascribed not to their central action on the brain, but their peripheral one on sympathetically mediated symptoms such as palpitation. Thus the vicious circle (feedback loop) anxiety ↔ palpitation is interrupted. Propranolol (inderal) 40 mg t.d.s are useful for the physical manifestations as palpitation, flushing, sweating, tremors and diarrhea; while the minor

tranquilizers are useful for the mental manifestations as fear, tension and irritability.

(2) Improvement of general health. The patient might need general tonics.

V – Environmental therapy (p. 57) a) Environmental adjustment may be essential by advice and instructions given to the relatives and friends. Change of occupation, limitation of responsibilities and expansion of interest may all be encouraged. Sometimes, isolation by admission to a hospital or sanatorium is essential since the relatives may be very anxious about the patient and this is reflected on him, increasing his anxiety. b) Occupational (work) therapy is very useful. c) Entertainments are essential.

Advice to marry or to have a child must be avoided, as it increases the disorder; the person who can not cope with his own responsibilities will not be helped by having additional burdens put on him.

Chronic resistant cases : In such cases, if on means can be found to strengthen the patient's personality by psychotherapy, if organic therapy is ineffective, and if the environment can no be altered, then it may be necessary to explain to the patient that he must accept his disability and he should acknowledge 'I have to live with this for the rest of may life'. The relief with which a patient may accept such a decision and the benefit which follows is often surprising.

It is helpful to remind the patient (1) There are many people who lead a very useful life with handicaps : Dr. Taha Hussein was blind, Beethoven was deaf and Napoleon was epileptic. (2) Psychological disorders may have to be accepted as a part of the price of a delicate personality

(B) PHOBIC ANXIETY DISORDER (PHOBIAS)

Clinical picture : These disorders have the same core of symptoms as the generalized anxiety disorder, but :

(1) The symptoms occur only in particular situations (circumstances), and their severity might reach a panic disorder.

(2) The patient avoids situations which provoke the anxiety.

(3) He experiences anticipatory anxiety when there is expectation of facing such situations.

(4) He knows that his fear is unfounded and irrational.

There are three main types of phobia :

1 – Simple phobia : It is a restricted category and common in both childhood and adult life, but only severe cases come to psychiatric attention. Anxiety is focussed on a single phobic stimulus e.g. dogs, heights, thunder and knives. Sometimes the condition has an obvious explanation, as in the case of a young woman who was bitten by a dog.

II – Social phobia : It is common, involving all social situations outside the family circle and occurs in early adult life, leading to social isolation. There is fear of being observed and criticized in social situations. The social phobia may be :

a) Global : in which all social situations are poorly tolerated.

b) Specific e.g. speaking in public, gatherings like parties or retaurant meals, where the patient gets blushing and trembling.

III – Agoraphobia : Agora is a greek word means meeting place. It is the most incapacitating phobia. There is fear of leaving the house, entering shops or using public transport, especially alone. The patient may become completely house-bound. If occurs in young adults, mostly females of dependent personality.

Claustrophobia : which is fear of closed spaces (e.g. incapable to sit in a room with the door and windows closed) is usually a part of agoraphobia.

Treatment :

(1) Psychological treatment : Behaviour therapy in which systemic desensetisation, modelling and flooding may be used. (p. 64)

(2) Somatic (drug) treatment : a) anxiolytics b) antidepressants (tricyclic), particularly anafranil.

II – HYSTERIA
(DISSOCIATIVE AND CONVERSION DISORDERS)

Definition : Hysteria is characterized by the unconscious production of manifestations (mental and physical), which enable the individual to escape from some difficulty (stress) or to gain some advantage (real or imaginary).

Thus in hysteria the manifestations of illness are produced by the patient for some purpose, without his being fully aware of his motive in doing so.

Differentiation from malingering (simulation) : (Fig. 29) In hysteria the individual is unaware of his motive (the mechanism is at the unconscious level). In malingerer the individual is fully aware of his motive and he deliberately simulates illness for some purpose (the mechanism is at the conscious level). In other words the hysteric deceives himself, while the malingerer deceives others. The differentiation of the two can usually be made in practice, as the malingerer can not maintain the simulation under repeated questioning, examination and secret observation (e.g. from the key-hole of the door).

However, the amount of successful self-deception that is achieved in hysterical reaction varies greatly. All transitions between hysteria and mlingering may be observed and at times it may be very cifficult to say where hysteria ends and malingering begins.

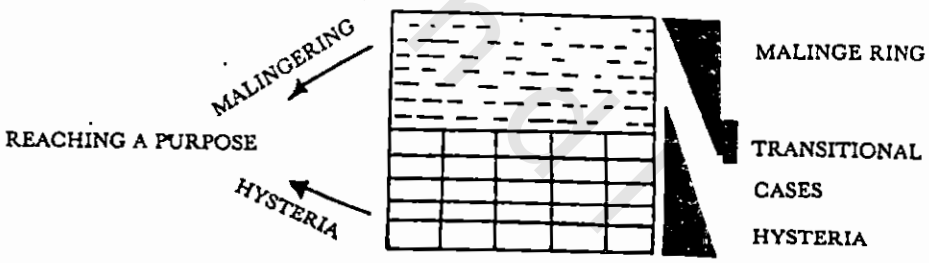


Fig. 29 : Hysteria and malingering : on left showing the mechanism for reaching a purpose; on right showing the transitional cases, midway between hysteria and malingering.

Etiology :

I – Hereditary (constitutional) factor :

(1) Morbid heredity is mush less important in the development of hysteria than it is in anxiety state, and plays only a minor role in the etiology.

(2) Premorbid personality : it is usually of the hysterical type (p. 29).

Such personality is usually the result of a faulty upbringing more than an inherited handicap. The morbid family environment and the adverse psychological management of parents in the formative years of life lead to the hysterical personality. So it is not rare to see both hysterical mother and child in the same family.

The two important features of such personality are a) The over reaction to situations which is the cause of the suggestibility and imitation so

characteristic of the hysteric. Hence when the hysteric is put in a ward with the other patients, he readily develops the manifestations of his neighbors (e.g. hemiplegia, vomiting, etc). b) The capacity of self-deception which is the result of what is known in psychopathology as 'dissociation'. There is a peculiar tendency of the hysterical personality to undergo such mental dissociation.

The nature of the hysterical tendency to dissociation is little understood, it appears to be associated with a peculiarity of the emotional life of the hysterical patient.

II – Acquired (predisposing and precipitating) factors : There are mainly (A) psychosocial factors, but (B) physical factors (p. 16) may play a role. The former will be discussed :

(1) *Morbid family environment during childhood* e.g. the effect of a hysterical mother on the child, which may be mistaken for heredity.

(2) *Precipitating or determining factors (the stress experienced) :* It includes any form of emotional experience, the unpleasant consequences of which the patient can not face, and so he escapes from the situation by means of the hysterical illness (the hysterical symptom). The responsible factor (stress) may be apparent to us on studying the case history, or it may be hidden and needs psychoanalysis to show it. There are many examples: i - The soldier who felt the strain of battle too great and developed paralysis of right arm was unable, by reason of his hysterical symptom, to continue the fight. ii - The young house-wife who found the home work too much (while her mother in law is doing nothing) and developed continuous headache, became unable, because of her hysterical symptom, to continue working iii - The child who had a feeling of inferiority with the idea of being neglected, after birth of his younger brother, and developed incontinence of urine was able because of his hysterical symptom to attract the family attention.

Age, Sex and Education : (1) Age : In general hysteria occurs most commonly in young adults. The commonest period is between 15 and 20, but it may occur in children as young as 3 years. A first manifestation after the age of 45 is rare, since by that time the personality is mature enough. (2) Sex: Females suffer much more frequently than males, since they are more emotional. (3) Education : Hysterical patients are relatively uneducated. During the war, usually the officers suffer from anxiety state and the soldiers suffer from hysteria.

Hysterical illness, in the majority of lower classes, is attributed to the wicked spirits, evil eye and witchcraft. Consequently the family seeks the advice of the native healer, who uses the Zar for treatment. The patients are cured by such means through suggestion.

Psychopathology : *(Mechanism) : The mode of production of hysterical symptom*

The stress results in a mental conflict, in which there is a war or struggle between two opposing forces e.g. the self-preservation instinct and the herd traditions (as in the soldier during war). The symptoms which arise are mainly dependent upon two factors : mental dissociation and suggestion, which are peculiar of the hysterical personality.

(1) *Mental dissociation :* In response to the conflict, the personality is splitted (mental dissociation).

a) Severe dissociation is rare. In it the dissociated part of the mental life is very extensive as occurring in double or multiple personality in which the body is under the control of different personalities at different times (p. 30 & 42). A similar profound mental dissociation is responsible for hysterical fugue.

b) Mild dissociation is much commoner. In it the dissociated part of the mental life is small and represents a part of the body (e.g. arm) which is functionally cut off from the rest of the mental life. Thus the patient dissociates himself from his arm, (does not regard it as a part of himself); consequently he is unable to move it (hysterical paralysis), or to feel with it (hysterical anaesthesia). The part or organ affected by the disease has a symbolic relation to the underlying conflict (e.g. right arm paralysis in the case of soldier at war).

(2) *Suggestion* operates powerfully when there is a mental conflict, and as the suggestion of disease is in harmony with one side of the conflict (the desire to escape), such suggestion is accepted and the symptom results.

As an example (Fig. 30) the soldier that developed hysterical paralysis of the right arm during the battle and was carried away from the battle field to the hospital. In that case, there was a conflict in the subconscious mind between two forces : (1) the self-preservation instinct as result of which the soldier wished to save his life by running away (to fly) (2) the herd tradition which urged him to go on doing his patriotic duty (to fight). Then a compromise was reached in the form of an illness and so both forces were satisfied. On the one hand he saved his life and on the other hand he was not blamed by the herd for being a coward. Thus he was removed from danger on account of his illness, which thus served his purpose.

There are many other examples, thus to loose a job or to fail an examination through illness is much more respectable than to do so through inefficiency.

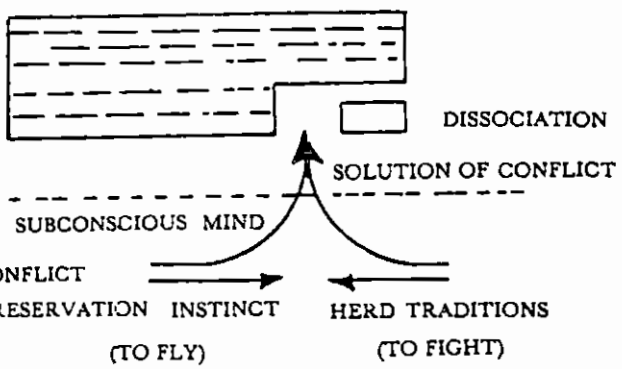


Fig. 30 : Mechanism of hysterical symptom.

In the hysterical illness the following points has to be observed :

(1) *Wrong solution :* The hysterical symptom is a solution of some problem since the conflict does not exist any more. However, it is an unsatisfactory, wrong or unhealthy solution, since it is at the expense of a part of the personality (which was dissociated).

(2) *Unawareness of the patient :* the connection between the problem (e.g. self-preservation) and the symptom (e.g. arm paralysis) is not seen by the patient. The patient is unaware of the real meaning of the symptom. If he thinks about it at all, he believes that the symptom means simply an illness in the ordinary sense (physical or organic).

(3) *''Belle indifference'* : from the fact that the symptom is a solution of a problem arises the patient's belle indifference i.e. pleasant mood without any worry about the disabling symptom (e.g. the arm paralysis). It is a very characteristic attitude of unconcern.

What determine the form of a hysterical symptom? In a given case this is usually determined by suggestion, the underlying factors may be :

(1) The organ involved by disease (hysteria) serves to solve the underlying conflict or problem. Thus the wife who dislikes her husband gets spasm of vagina (vaginismus) during coitus, so that the act will be impossible with no subsequent pregnancy.

(2) An organic disorder from which the patient actually suffers, thus conjunctivitis may lead to blindness as a hysterical symptom.

(3) A mild injury in an accident e.g. to a limb might lead to hysterical paralysis especially if there is the question of compensation.

(4) Imitation of an organic disorder in an individual whom the hysteric has seen and with whom, for some reason, he identifies himself. Thus a case of epilepsy in the ward might cause convulsions in the hysterical neighbor.

Clinical picture : The following points must be remembered :

(1) Probably there is no other disease, in whole medicine, in which the manifestations are more numerous and more diverse than hysteria.

(2) The manifestations may be a) mental (e.g. amnesia) or b) physical (e.g. arm paralysis), but it must be remembered that all are mental in origin (due to mental dissociation).

(3) The physical symptoms may imitate those of any physical (organic) illness, but the imitation is generally a rough one, since it corresponds to the idea the patient has about the illness in question. Thus in hysterical hemiplegia the patient does not see, hear or smell with the eye, ear and nostril on the same side, because the patient thinks that the whole side is one functional unit.

I – MENTAL MANIFESTATIONS :

They are called *'dissociated symptoms'* since they show altered states of awareness (to avoid the unpleasant feeling of the stressful situation with mental conflict).

(1) *Amnesia :* it includes loss of memory for some unpleasant emotional experience. In severe cases it may cover the whole past life.

Fig. 31 : A patient sitting in fugue.

(2) *Fugue :* (Fig. 31) in which there is disturbed consciousness (confusion or clouded state), with an impulse to wander. The patient disappears from his home and wanders about, loosing his memory and sense of identity. This state may last for hours or days and the patient may be found in another city. On recovery he remembers nothing about the events of his period of fugue, in other words he has a complete amnesia for that period.

(3) *Somnambulism (sleep-walking) :* Children frequently walk in their sleep, usually to the bathroom, or in what appears to be some nonspecific searching behaviour. Hysterical sleep walking or somnambulism is a fugue beginning during sleep (i.e. the mental dissociation occurs during sleep). During it the patient carries out highly complex activities having great

psychological significance which are repeated almost identically in episode after episode (see the example on p. 43).

The girl who used to give her sick mother I.M. injections, started after her death to get up at mid-night and prepare for the injection.

(4) *Double and multiple personality :* are due to a more complete form of dissociation. There may be two or more personalities for the same individual at different times, which may be totally different and quite independent of each other (e.g. p. 30 Mr. Stevenson who became Dr. Jekyll and Mr. Hyde).

(5) *Pseudo-dementia (Ganser syndrome) :* is a condition in which the patient talks and behaves in accordance with his conception of a demented or mad individual. When given a pen or key to use, he will use the wrong end of it. Wrong answers are given of a kind indicating that the correct one is not far from consciousness. Thus when asked to multiply 3 x 3, he may give the answer as 8 or 10 (because of that it is called the syndrome of approximate answers).

(6) Other manifestations : a) Confusional, delirious and stuperose states are not rare, in them the vital functions are not so deeply involved as in organic states. b) Trances, dream state or twilight state (p. 18) c) Sociopathic aggressive reactions (excitement).

II – PHYSICAL MANIFESTATIONS : They are called *'conversion symptoms'* (to avoid the unpleasant feeling of the stressful situation), They may be (1) motor (2) sensory (3) visceral.

(A) MOTOR : They may be in the form of loss of function (paralysis) or excess of function (spasm, convulsions and other involuntary movements).

(1) Paralysis : It is common and may affect one limb (Fig. 32) or all four limbs (Fig. 33), may take the form of hemiplegia or paraplegia (Fig. 34) and the paralysis may be of the flaccid or the spastic type.

It is distinguished from organic paralysis by the following a) Distribution: it is either of the entire limb or of some particular movement and is never confined to individual muscles as in poliomyelitis, or shows selective distribution as in pyramidal (upper motor neuron) paralysis. When the patient tries to move the affected limb (e.g. flexing the elbow), palpating of the muscles involved reveals that agonists and antagonists (biceps and triceps) are contracting simultaneously. b) Nutrition : if there is wasting, it is no more than can be accounted for by disuse. c) Posture : in long standing cases contractures occur and may be accompanied by blueness, coldness and edema of the affected limb; careful examination may then be necessary to exclude organic disease. d) Tone : when of the flaccid type, the limb is flail-like and when of the spastic type, attempt by the examiner to move the

limb causes strong contracting of the antagonistic muscles. e) Gait : in hysterical paralysis of one or two legs, the gait is pathognomonic on account of its bizarre character, and is unlike that of any organic disease. There is often a tendency to fall, especially when other people are present, but the fall does not lead to injury. Sometimes the patient can move his legs in bed, but can not walk at all (astasia abasia). f) Reflexes: the tendon reflexes re never lost, the abdominals are present, the planter is flexor and the excretory functions are normal.

Paralysis or loss of function may occur in the form of :

i - Aphonia in which the patient can only speak in whisper, although the vocal cords move normally and he can cough.

ii - Mutism in which the patient can not speak at all, although he can talk in his sleep.

(2) Spasms (rigidity and contractures) : a) A limb or a part of it (Fig. 35 a) may be held rigid in a fixed attitude and can not be straightened. It is distinguished by the fact that the rigidity increases in proportion to the effort made by the examiner to move the rigid part. b) Writer's cramp is due to spasm of hand muscles on writing. c) The face may be affected (Fig. 35 b) d) Hysterical torticollis is the result of spasm and contracture of neck muscles.

Fig. 32 : Paralysis of left arm (the patient is asked to raise both arms).

Fig. 33 : Hysterical quadriplgia with 'belle indifference'.

Fig. 34 : A girl with hysterical flaccid paraplegia showing the inability to get up and 'belle indifference'.

Fig. 35 : a) Spasm of right hand b) Spasm of right face

(3) *Convulsions (fits)* a) The onset is usually less abrupt than epileptic fits, with no aura, following an emotional upset and only in the presence of an audience (never when the patient is alone and never during sleep). b) During the fit (Fig. 36) the hysteric, though in an altered state of consciousness, is not completely unconscious, she may pretend to be so, but can usually be aroused by sufficiently firm handling (e.g. spray of cold water) and an attempt to elicit the corneal reflex evokes a vigorous contraction of the orbicularis oculi. c) The convulsions are not a matter of tonic and clonic stages, but patient makes violent purposive movements such as kicking, biting, pulling her hair, tearing clothes and slapping her face. The patient is liable to exhibit bizarre postures such as opisthotonus, associated with screaming. If attempts are made to restrain the patient, she responds by wild struggling. d) The patient does not injure herself on falling and neither tongue biting, nor incontinence are encountered. e) The duration of the fit varies from few minutes up to hours.

Fig. 36 : A hysterical girl during a fit (convulsions), and pretending to be unconscious.

(4) *Involuntary movements* : Tremors which may be generalized or localized are usually coarse, but may be fine. They usually increase if the

patient's attention is drawn to them, and cease when attention is distracted. b) Choreic movements may occur, but usually more stereotyped than the movements of rheumatic chorea, and can not deceive the skilled doctor; the face is usually not involved.

(5) *Incoordination of movement (ataxia) :* affecting upper or lower limbs or both of them may occur.

(B) SENSORY : They may be in the field of general sensations, or special senses :

i - General sensations : their disturbance may be in the form of loss of function (anaesthesia), or excess of function (pain).

(1) *Anaesthesia :* It usually includes all kinds of sensation (superficial and deep) and varies in extent from a portion of a limb to the whole of one side of the body.

It is distinguished from organic anaesthesia by the following a) In distribution it never coresponds to a peripheral nerve, root or spinal segment, but to the mental representation (patient's idea) of the part involved. Consequently when affecting a limb it is of the 'glove' or 'stocking' type with a sharp defined margin, usually at joints. When one half of the body is affected, the anaesthesia stops usually at the midline as no organic lesion would; also the patient will not feel a vibrating tuning-fork placed over the affected half of the sternum, although the bone conducts the stimulus perfectly to the opposite side. b) The level of the sensory loss can always be changed by suggestion. c) The coordination of the anaesthetic limb may be perfect, inspite of complete loss of joint sense, a condition which is impossible with an organic lesion (in which ataxia of movement occurs).

(2) *Pain :* Sever pain may be complained of in any part of the body; the most common sites are the head (headache), spine (backache) and abdomen.

The patient is actually experiencing pain, but the physical discomfort is much easier for him to bear than the emotional strain which he gets on carrying the responsibility of a healthy mature individual.

It is distinguished from pain of organic disease by the following :
a) Time setting : it is usually continuous and may be of long duration (months or years). b) Character; bizarre descriptions are usually given e.g. snake biting or machine grinding. c) Severity : it is usually described in exaggerated language (as horrible, unbearable), although the patient is in good general condition d) Response to analgesics does not occur, even to the most powerful ones. e) Associated manifestations : those usually present

with pain of organic origin are absent (such as those of shock in sever pain : tachycardia, sweating and pallor); the belle indifference may be evident.

ii – Special senses : their disturbance is usually in the form of loss of perception, which usually arises suddenly, but it is doubtful if it is ever complete.

(1) *Blindness* : a) In bilateral blindness, although the patient professes to be completely blind, he avoids obstacles, as furniture in the room, on walking. When asked to look at a close object no convergence occurs (in the organically blind it occurs). b) In unilateral blindness diplopia is produced by covering one eye with an appropriate prism. c) The pupillary light reflexes are normal. d) Field examination usually shows a spiral form, (i.e. the defect increases more during the examination as a result of suggestion by the examiner), leaving only central vision intact (tubular constriction).

(2) *Deafness* : it is often unilateral; when bilateral it is often absent during sleep and the patient who says he is 'stone deaf' could be awakened by sounds.

Hallucinations : In addition to the loss of function in the special senses, there may be excess of function in the form of hallucinations. Although uncommon, the most frequent are the visual. Characteristically they are differentiated from hallucinations of psychosis by : (1) They consist of complex scenes that appear repeatedly, in a stereotyped fashion, often reproducing a real past event of emotional significance to the patient. They may have an element of wish fulfillment as when the sad widow sees the dead husband sitting with her. (2) The patient is aware that they are unreal, no matter how vivid the sensory images may be.

(C) *VISCERAL :*

Hysterical manifestations usually affect and are mediated by the voluntary sensori-motor system. However visceral functions, mediated by the autonomic nervous system, may be affected. This fact indicates that, anatomically and physiologically, the separation between voluntary and autonomic nervous system is not an absolute sharp one.

Some authors put the visceral manifestations under somatoform and psychosomatic (psychophysiological) disorders (see p. 220).

(1) Alimentary system :

a) Hysterical dysphagia due to a localized spasm of the oesophagus.

b) Air swallowing (aerophagy) usually starts by straining to bring up wind (eructation). It may lead to extreme gastric distension.

c) Globus hystericus, which is described as a sensation or a lump in the throat, is probably the result of air swallowing; it is a referred sensation produced by the presence of air in the lower part of the oesophagus.

d) Hysterical vomiting is usually due to an unconscious desire to avoid

some unpleasant task or situation which causes disgust to the patient. If it persists it may produce marked wasting and acidosis.

e) Hysterical anorexia (Fig. 37) *:* It usually occurs in young ladies following a dieting regime for slimming, or it may follow an emotional shock (e.g. disappointment in love). Appetite is lost completely and the patient loses weight gradually until wasting becomes considerable. When the patient is forced to eat, vomiting occurs and may be obstinate. Amenorrhea is an early symptom and may precede the onset of weight loss; it is often very persistent. Inspite of the marked emaciation a considerable fund of energy may be retained, a condition which is not seen with emaciation due to organic illnesses. The mood shows the characteristic belle indifference' of the hysteric. The condition may resemble Symmond's pituitary cachexia, but only superficially.

Etiology of anorexia nervous : (1) Hysteria in 75% of cases which are typical. (2) Schizo- phrenia in 20%. (3) Depressive and obsessional disorders in the remaining 5% which are usually atypical.

Fig. 37 : Anorexia nervosa in a boy that lost 10 kilos in two months.

Note that the case is atypical as regards sex and age.

f) Hysterical diarrhea and constipation may occur.

g) Abdominal and pelvic symptoms may occur; those which are attributed to visceroptosis are in part or entirely hysterical in origin.

(2) *Cardiovascular system :* Attacks of tachycardia and pseudoanginal crisis may occur. The patient is outwardly placid (with belle indifference), to differentiate him from the patient with anxiety state, having the same complaint.

(3) Respiratory system :

a) Hysterical hyperapnea usually follows an emotional shock. The excessive ventilation of the lungs will wash out CO_2 causing alkalosis which may lead to tetany. The hyperapnea is diminished or disappears when the patient is engaged in conversation.

b) Respiratory tics such as snuffing, clearing the throat, etc.

(4) *Excretory system :*

a) Nocturnal enuresis is not rare in unstable children. Its motive is

frequently a desire to attract attention; the symptom tends to be maintained by punishment.

b) Retention of urine may occur in young girls, particularly at boarding schools.

c) Incontinence of faeces (encopresis) may occur in a manner similar to enuresis.

5) *Genital system :*

a) Impotence may be due to fear of the consequences of sexual intercourse e.g. catching a venereal disease.

b) Vaginismus (dyspareunia) is either the result of lack of affection to the husband or the fear of becoming pregnant.

c) Amenorrhea is either the result of fear of pregnancy or a great desire to have a child. The latter may be associated with abdominal distension from simultaneous contraction of the diaphragm, relaxation of the abdominal muscles and forward thrusting of the lumbar spine leading to pseudopregnancy (pseudocyesis).

(6) *The spine :* may be site of hysterical pain, tenderness and spasm; occasionally remarkable deformity occurs and may lead to shortening of the vertebral column.

(7) *The skin :*

a) Dermatitis artifacta is the name applied to cutaneous lesions voluntarily produced by the hysteric; pruritus being a frequent symptom.

b) Dermatographia is sometimes seen and consists of wheels or blisters as a result of vasomotor disturbances. Thus if a word is written on the skin with a pin, very soon the writing becomes raised in the form of a wheel.

(8) *Pyrexia :* Probably, in most cases, the thermometer is manipulated by the patient. However, in certain cases, it appears that the actual rise of body temperature may occur as a hysterical manifestation.

Recent change in the clinical picture : With the spread of medical knowledge among the population by radio and television, gross physical manifestations such as hysterical paralysis and blindness have tended to decrease at the expense of vaguer and subtler complaints such as headache, dizziness and dyspepsia. Consequently the diagnosis of hysteria calls for increasing knowledge of general medicine. The internist tends to see these hysterical cases more than the psychiatrist. This had lead to the wrong belief that hysteria is on the decrease, when all that happened is a change in its manifestations.

Mass hysteria : it is an epidemic phenomena seen mainly in schools of girls, showing the same manifestations, by the mechanism of suggestion.

Diagnosis : The diagnosis of hysteria must be arrived at from the two approaches or angles : (1) The positive one by the presence of evidences for hysteria. (2) The negative one by the absence of signs of organic disease.

Therefore the diagnosis of hysteria is not a diagnosis by exclusion (of organic disease).

(1) *The positive angle :* of hysteria consists of : a) The premorbid personality of the hysterical type. b) The disease following a precipitating emotional stress. c) The past history of similar reactions. d) The attitude of the patient towards the symptoms, either i - describing them with the classical belle indifference or ii - demonstrating them dramatically.

(2) *The negative angle :* to exclude organic disease, it is essential that a thorough examination should be made of the systems to which symptoms are referred. The symptoms of hysteria imitate, but rarely correspond exactly to those of an organic disease. As we said before, they represent the patient's idea about the illness in question, and there is always some discrepancy which can be detected by the skilled physician.

It must be remembered that :

(1) Some organic diseases in the early stages, particularly neurological diseases (e.g. D.S., brain tumor and cerebral arteriosclerosis) may show no definite signs. The problem is usually met with in D.S. on account of the transitory occurrence, in its early stages, of weakness and sensory disturbances. However careful examination will always reveal signs of organic disease of the nervous system (e.g. pallor of optic disc, nystagmus, diminished abdominal reflexes and extensor planter response).

(2) Many organic diseases may be accompanied by hysterical symptoms. The hysterical reaction is facilitated by organic disease, and organic mental changes in particular provide a fertile soil for hysterical physical conversion symptoms of all kinds. Therefore, it is a good rule to take the B.P., examine the fundus, and test the memory in any patient that shows such symptoms (e.g. hysterical paralysis of a limb) for the first time after the age of 40 years.

Differential diagnosis : from other neuroses and psychoses is usually easy.

(1) Anxiety neurosis may show the same manifestations as those described in hysteria (e.g. anorexia, tachycardia or hyperapnea), but in hysteria a) The manifestations have an underlying psychological meaning and purpose (to escape from a difficulty) which is not present in the anxiety neurosis. b) Consequently in the hysterical patient the 'belle indifference' can be detected, while in anxiety neurosis conscious fear (anxiety) is present.

(2) Schizophrenia : It may be difficult to differentiate severe hysteria from schizophrenia and we must remember that the hysterical personality may develop major disorders. A fair rule is that, if there is doubt between the diagnosis of hysteria and schizophrenia, the case is most probably the latter.

Classification of hysterical reaction : The following types are seen :

(1) Primary hysterical reaction : It is an escape mechanism of a personally purposive kind.

(2) Secondary hysterical reaction : Here the hysterical reaction is developed on top of another mental abnormality : a) Mental deficiency : a large number of crude hysterical manifestations are seen in patients with deficient intelligence (dullars). b) Organic brain disease which provide a fertile soil as we said, the best example is cerebral arteriosclerosis. c) Other psychogenic disorders e.g. affective states (anxiety and depression) and schizophrenia.

(3) Hysterical prolongation and exaggeration; Here the hysterical symptoms lead to an extension either in duration or severity or both, of some pre-existing disorder (organic or psychological). a) Example of the organic is the hysterical persistence of headache in patients recovering from head injury. b) Example of the psychological is the hysterical persistence of tremors following acute anxiety state. Another important group is those suffering from affective disorders (anxiety or depression) it is often very difficult to determine when the affective disorder ends and the hysterical reaction starts.

Prognosis : As to recovery from an individual symptom (e.g. arm paralysis) it is good in most cases, but relapses are frequent (because of the hysterical disposition or personality), unless the patient can be induced to undergo a considerable psychological readjustment.

Chronic cases are not uncommon in which a single symptom (e.g. headache) persists for years. Victims of chronic hysteria are usually persons of low intelligence.

Reasons for the continuance may be many and lie : (1) In the patient (e.g. does not want to work). (2) In environmental circumstances (e.g. domestic troubles) which persist unchanged. (3) In the existence of a relative who (usually mother) who believes in the patient's illness and constantly supports him.

Treatment : It consists of the same principles which were mentioned for anxiety state (p. 89).

I – History taking : A careful chronologically detailed history is essential in order to discover the underlying mental conflict.

II – Physical examination : A careful physical examination is essential in order to assure the patient that no organic cause for his disability exists.

III – Psychological treatment : The minor psychotherapy is usually used. It is the task of the doctor to make it clear to the patient that his hysterical symptom is a neurotic (pathological) solution to his mental conflict, and that it is a wrong (unhealthy) solution, since it is at the expense of a part of his personality (which was dissociated).

The aim of treatment in a hysterical case must be :

(1) Removal of the hysterical symptom (e.g. arm paralysis).

(2) Solution (or alleviation) of the underlying conflict or difficulty that leads to the production of the hysterical symptoms. Such symptoms are likely to recur, in the same or in different forms, unless an attack is made on

the underlying psychological problem. It is therefore necessary to study the environment and the difficulties that have been experienced in adaptation to life, and to plan treatment in accordance with the findings.

(3) Treatment of the underlying hysterical personality : This may be very difficult, since a severe hysterical personality is usually incapable of self-readjustment. Consequently the most fruitful approach is often modification of the environment.

Removal of hysterical symptoms : Reassurance, explanation, persuasion and suggestion can often remove recent conversion symptoms in an intelligent and cooperative patient, particularly if he is not faced with a difficult situation, should his symptoms disappear.

Suggestion may be applied to the patient either : a) in the waking state or b) in a hypnotic state (after injection of a small dose of evipan, when he will be more suggestible). Suggestion may be enforced with electrotherapy.

Treatment of arm paralysis : (1) Immediate complete cure is necessary, since the piecemeal improvement is often tedious and temporary. The doctor choose a day when he can spend an hour or more with the patient. Complete function must be regained at one siting. (2) The patient must be informed that the doctor will not leave him until the limb is moved. (3) The doctor then demonstrates to the patient (often against his resistiveness) that all movements can be done passively. (4) Then he orders the patient to move his arm, telling him that he will be able to do so, since the bones, muscles and nerves are healthy and there is no organic lesion (persuasion and suggestion). (5) To increase the suggestion, faradic stimulation may be employed to demonstrate that the muscles are capable of contraction; the patient then imitates the movements excited electrically.

IV – Somatic treatment : Minor tranquilizers (p. 72) are usually of help.

V – Environmental treatment : The environment can often by adjusted by advice and instructions given to relatives. In some cases, removal from home and complete isolation are desirable, since hysteria flourishes in an atmosphere of excessive sympathy and attention.

III - OBSESSIONAL STATE (NEUROSIS)

Definition : An obsession is (1) a felling of compulsion to repeat some mental or physical act (2) which the patient resists (3) recognizing that it is absurd and meaningless (for examples see p. 20).

Obsessional traits (character) occur in the following conditions :

I – Normal people to a certain extent (1) All children develop certain rituals : they have to walk on the cracks of the pavement or avoid them. (2) Most adults follow a particular order when they arrange their possessions, books and papers; any disturbance of the accustomed routine tends to produce and unpleasant effect.

II – Psychiatric disorders : Apart from obsessional neurosis, other disorders show the obsessional traits, particularly (1) depressive state (2) schizophrenia.

III – Organic disorders : (1) Brain disease a) After head injury in some patients in whom the premorbid personality was not of the obsessional type. b) After encephalitis : oculogyric crisis of post-encephalitic parkinsonism is usually associated with obsessional trait (2) Hypothyroidism (myxedema).

Obsessional traits are regarded as symptoms constituting a neurosis only when (1) they are the essential symptoms (dominating the picture). (2) their persistence is such as to interfere seriously with social adaptation and every day life of the individual.

Obsessional neurosis is the least common of the neuroses, forming less than 5% of cases.

Etiology :

I – Hereditary (constitutional) factor : It plays the main role.

(1) *Morbid heredity* is usually quite evident. Patients with obsessional neurosis have 1/3rd. of their parents and 1/5th. of their siblings exhibiting marked obsessional traits.

(2) *Premorbid personality :* It is usually of the obsessional type (p. 29).

The following points have to be remembered (1) The vast majority of individuals with obsessional personalities never break down to become patients (2) If they do, the resulting illness is not necessarily that of an obsessional neurosis, on the contrary the commonest type is a mixed state of anxiety and depression. (3) Obsessional neurosis may develop in individuals with no evidence of obsessional traits in their premorbid personality.

II – Acquired (predisposing and precipitating factors) : These are mainly (A) psychosocial factors, but (B) physical factors (p. 16) may play a role. The former will be discussed.

(1) *Morbid family environment during childhood :* An important factor is obsessive parents imposing meticulous rigid routine to their children during the formative years. This is more conductive to obsessional neurosis

in the child than the morbid hereditary endowment itself.

(2) *Precipitating or (determining) factors* in an individual who is constitutionally predisposed : this consists of a psychosocial factor or stress (p. 15), either external or internal (mental conflict).

Age and Sex : Obsessional neurosis, like the other neuroses, usually develops in early life. Both sexes are equally affected.

Psychopathology : (see also general psychopathology p. 44 & 48).

Various attempts have been made to explain the mechanism of production (psychogenesis) of the obsession. Some believe that their origin is a sexual or aggressive misconduct or wish in early life (e.g. homosexual practice or a wish for death of one of the parents). Later on, when maturity is reached, the memory of this is associated with feeling of shame and remorse (forming an offending complex) which is intolerable to the personality. Consequently repression in the unconscious mind occurs. To help the constant resistance of the repressive process (the censor), the conscious mind is continuously occupied by some thought or act which constitutes the obsession. (Fig. 38).

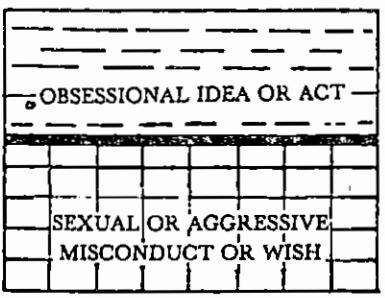


Fig. 38 : Pathogenesis of the obsession

Psychoanalysis puts the origin of obsessional symptoms at about the time of the aquirement of bowel control (ana stage), hence the obsessional traits are called anal character.

There is general agreement that obsessional phenomena, whether constitutional (hereditary) in origin or determined by early experiences, become deeply ingrained in the personality, and are difficult to modify.

Clinical picture : Obsessions are divided into three types, the patient may suffer from one or more of them.

I – Obsessional thoughts (ruminations) : There consist of thoughts which come into the patient's mind and which he can not get rid of. It may be (1) A number, a name, phrase; song or some unusual sight (of a frightening or obscure nature). (2) A thought of a religious, scientific or philosophical import i.e. matters to which definite answers are impossible e.g. ruminations about the after life and who created our great creator (God).

II – Obsessional acts or Rituals (impulses) : These lead the patient to perform particular acts (or to repeat particular words). Rituals are concerned mainly with cleanliness, order and checking. Examples are to wash hands on touching any thing (Fig. 39), or to touch every window while walking, or to

read the Fatha thrice before beginning any ordinary task such as writing a letter, or to count up to a certain number (e.g. 10) before answering a question.

III – Obsessional fears or Phobias (inhibitory obsessions) see. : p. These are obsessional thoughts with fear content. A phobia means irrational (unreasonable) fear associated with particular situations. If the patient enters the fear-producing situation a panic (severe fear) occurs. The phobia may be of disease, dirt or sharp instruments. Thus the phobia prevents (inhibits) the patient from doing certain things such as mixing with people lest he may be infected with tuberculosis, seeing a knife lest he may attack others with it.

Complications (secondary effects) :

(1) When obsessions are severe they cause severe secondary (reactive) affective disorder a) Anxiety and tension : the patient becoming increasingly agitated as he endeavours to resist the compulsion. b) Depression frequently occurs in addition, since life becomes very difficult due to interference with the daily activity by obsessions, and escape from them seems to be impossible (Fig. 40); inspite of that suicide is uncommon.

(2) Most of the patient retain insight into their condition and a normal perception of their surroundings, a proportion develop a definite psychosis a) depression with suicidal tendencies or b) schizophrenia (paranoid type).

Diagnosis : The diagnosis of obsessional neurosis is usually easy, provided there is adherence to the criteria of the definition given before, There must be (1) feeling of compulsion (2) the patient resisting it (3) recognizing it as senseless.

Delusions must be distinguished from obsessions. As we said (p. 24) the patient struggles against his obsessions but fights for his delusions, since he does not feel them silly and firmly believes in their truth. Thus the schizophrenic symptoms e g. stereotypy (p. 19) as a result of delusion of influence (feeling directed by some unknown force) should not be confused with the obsessional act.

Differentiation of chronic obsessional neurosis (in which the emotional response of the patient is often poor) from schizophrenia may be difficult.

Fig. 39 : Obsessional acts : washing the hands on touching anything to the extent that dermatitis resulted.

Fig. 40 : Obsessional ruminations and fears with secondary depression.

Prognosis : Of all the neuroses obsessional state is the most serious variety and some psychiatrists put it as intermediate between neuroses and psychoses. Consequently the prognosis is usually bad and the condition is a chronic disorder which tends to worsen in the course of years, although fluctuations might occur. The environmental factors may have some bearing in the periods of improvement and aggravation which may occur from time to time.

Follow up showed that 45% are worsen 45% are improved and 10% are well.

Cases diagnosed as obsessional neurosis that recovered were most probably depressive state with obsessional symptoms on top; the latter disappeared when the underlying depression recovered (either spontaneously or by treatment).

Treatment : It is a matter of great difficulty.

I - Psychological treatment : behaviour therapy may be of help in some cases, especial phobias (see flooding and modelling (p. 64).

II- Somatic treatment :

(1) Drugs : Antidepressants (tricyclics), the best is clomipramine (anafranil) 75 mg. tablet 1-2 twice daily benefits many patients. It is supposed to have antiobsessional action apart from its antidepressant one. Also some of the newer antidepressants may be beneficial.

(2) Psychosurgery e.g. restricted orbital undercutting p. 80 was tried by us and produced symptomatic relief in severe cases; the obsessions do not disappear, but become less compulsive and annoying. Also stereotaxic

cingulectomy benefited about 30% of patients.

III - Environmental treatment : (1) Change of surroundings such as hospitalization often leads to some improvement. (2) The patient should be encouraged to occupy himself in something which needs attention. He must try to ignore rather than to resists his obsessions. Patients with obsessional acts may be occupied all the time in manual activities e.g. in needle work or carpet weaving.

IV – REACTIVE DEPRESSION

This will be discussed with the endogenous depression (p. 134)

V – MIXED STATE

Here the type of reaction is not a pure one, but a mixture of the previous four disorders : anxiety state, hysteria, obsessional state and reactive depression. Any combination may occur, the commonest being anxiety with depression (Fig. 41,42).

Fig. 41: Anxiety with depression (i.e. anxiety is more).

Fig. 42: Depression with anxiety (i.e. depression is more).

PSYCHOSES
I – AFFECTIVE (MOOD) DISORDERS

(A) MANIC - DEPRESSIVE PSYCHOSIS

Manic-depressive psychosis is mental disorder characterized by : (Fig. 4a p.8)

(1) Disturbance of affect or mood i.e. states in which excessive cheerfulness or sadness is the dominant emotion (with a concomitant disturbance of intellect and behaviour).

(2) Though the prognosis is good with complete recovery, there is marked tendency to relapse (recurrence) (Fig.50 p. 130).

Manic and depressive psychoses are grouped together because :

a) They may alternate in the same patient (Fig. 50c p. 130) (however depressive states are more frequent than manic states with ratio of about 5:1; and in most cases the first attack is a depression).

b) The main symptoms may be regarded as exact opposites e.g. in manic state there are cheerfulness and psychomotor hyperactivity, while in depressive state there are sadness and psychomotor retardation.

Manic-depressive psychoses (Fig. 50 p. 130) may be (1) *Bipolar* (common) when the patient suffers from both depressive and manic states. (2) Unipolar when the patient suffers from one type only *i - depressive states* (common) *ii - manic states* (rare).

Etiology :

I – Hereditary (constitutional) factor : It plays the main role and is usually marked in most of the cases as demonstrated by :

(1) *Morbid heredity :* There is evidence of heredity in 80% of cases. If one parent is affected, 1/3 rd. of the children would be similarly affected; while if both parents were affected, 2/3 rds. would show milder forms of affective disturbances.

The manic-depressive constitution (inheritance) is probably due to a single dominant gene, although only 20-30% of the carriers develop the illness.

The figures regarding the liability of the various relatives of a patient to be affected are : 9.5% for children; 2.5% for first cousins; the figures for the general population being given as 0.2-0.4%.

(2) *Premorbid personality :* It is frequently of cycloid type (p.28).

It must not, however, be supposed that all sufferers are of this type, for many are of the anxious type (p. 29).

(3) *Physique*; The classical manic-depressive psychosis tends to occur in those with a pyknic physique (p. 32).

II – Acquired (external) factors : Because of the marked hereditary factor in most of the cases, it is clear that acquired or external factors (i.e. environment) can play only a very small part, which should not be over-estimated. (1) Many persons develop the psychosis in the absence of any external factor and thus the disorder is called endogenous. (2) In some cases external factors, even trivial ones, may precipitate an attack, and it may be that some constitutionally predisposed persons, in the absence of these, might escape.

The precipitating or exciting cause may be : (1) psychosocial factors : any form of mental stresses (p. 15) (2) Physical factors : a) Physical exhaustion from any cause, especially infections (particularly influenza). b) Child-bearing (pregnancy, delivery and lactation).

Age and Sex : The first attack occurs mostly between the ages of 15–35 years. The disorder is much more frequent in women (form about 70%) than in men, this is probably due to the child-bearing period acting as a precipitating cause.

Psychopathology : (Fig. 43) (See also general psychopathology p. 40).

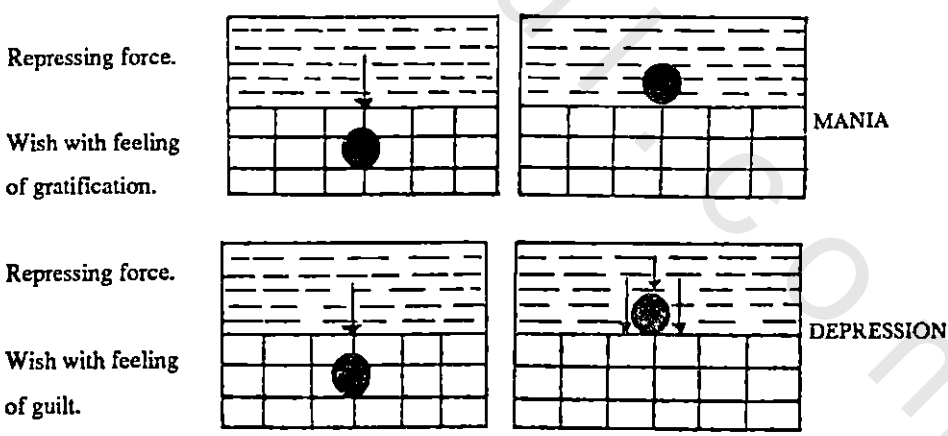


Fig. 43 : Psychopathology of manic-depressive psychoses.

I – Manic state : The elation (happiness) is the most characteristic feature. It is regarded as the mood appropriate to the fulfilment of a wish gratification. What makes it pathological is that there is nothing in the environment that apparently justifies the elation. What happens is that there is a complex with strong wish associated wish feeling of gratification that has been repressed into the unconscious mind. Then the repression is removed and the patient feels happy and behaves as if the wish has-been-fulfilled. The repressed wish is (1) for some adult gratification e.g. marriage, but (2) more often it is childish and has persisted into adult life e.g. for the death of a hated parent. Sometimes external circumstances contribute to the wish-fulfilment and so act as a precipitating factor psychosis, (e.g. the actual death of the hated parent).

II – Depressive state : The depression (sadness) is the most characteristic feature. It is regarded as the mood appropriate to the feeling of guilt. What makes it pathologic that there is nothing in the environment that apparently justifies the depression. What happens is that there is a complex with strong wish associated with feeling of guilt, that has been repressed in the unconscious mind. The wish may be an adult or an infantile one (e.g. the death of a relative). Then the wish is fulfilled, either in fantasy or in fact; since it is unpleasant, a gigantic effort is made for repression. Repression (inhibition) becomes generalized, so that all motor and mental activities are interfered with.

Clinical picture : The manic-depressive psychosis is an active process, which penetrates the whole organism, affecting the mind and the body. The manifestations are (1) both mental and physical (2) the exact opposites (as shown in the following table and in Fig. 44).

(a) (b)

Fig. 44 : Showing the mood changes.
a) manic state with happiness
b) depressive state with sadness.

	MANIA	DEPRESSION
I – Mental manifestations		
(A) Affect (mood)	Elation (cheerfulness)	Depression (sadness)
(B) Intellect		
(1) Thought		
a) stream	Flight of ideas	Retarded thinking
b) content	Delusion of grandeur	Delusion of self-reproach
(2) Insight	Absent	Present (usually)
(C) Behaviour		
(1) Motor activity	Hyperactivity	Retardation (up to stupor)
(2) Aggression	Towards others	Towards self (suicidal)
II – Physical manifestations		
(1) Complexion	Ruddy	Sallow
(2) Sexual desire	Increased	Diminished
(3) Somatic manifestations	Usually absent	Usually present

MANIC PSYCHOSIS

Distinguishing features : We recognize a triad of symptoms (1) Affect : elated (though unstable) mood (2) Intellect (thought) : fight of ideas (3) Behaviour : motor hyperactivity. These basic symptoms are to be considered as a background or setting for the development of other symptoms that will be mentioned later.

Onset : In is usually acute, the history dating back only for few days or weeks.

Clinical types ; There are three grades or types of manic states, but there is no very clear line of demarcation between them. These are (1) Hypomania (2) Acute mania (3) Chronic mania.

ACUTE MANIA (Fig. 45)

I – MENTAL MANIFESTATIONS :

(A) AFFECT (MOOD) : Elation is the dominating mood. The patient seems gay and cheerful, might sing or dance and states that he never felt better. The lady patient exaggerates in her make up and wears brightly coloured clothes. But the patient is usually irritable as well, and irritability is usually the first observed symptom and may be one of the most prominent features throughout the illness.

(B) INTELLECT :

(1) Thought

a) Stream : Flight of ideas (p. 20) is the characteristic disturbance of thinking as shown by the talk of the patient.

Talk : is excessive but fragmentary (the mind flies form one ideas to another) and hoarseness of the voice commonly results.

Attention : the patient pays attention to every passing stimulus in the environment (e.g. somebody coughing) and comments upon it; thus distractability is a marked feature.

b) Content : delusions i - Grandiose delusions go with the elated mood, the patient states the he is very rich, strong or intelligent. He or she spends a lot of money, buying many un-needed things, and becomes very generous, giving others gifts and paying big tips ii - *Paranoid* colouring is often present and may go to delusion of persecution because the patient is wanting more than he can have and is unwilling to confess that he is wrong (e.g. the patient wants his family to buy a car for him, while they are poor).

Perception : Hallucinations are rare even in severe cases; if present they are in keeping with the elated mood and grandiose delusion e.g. voices speaking to patient about his special powers, or visions with a religious content as seeing angels.

(2) Insight; is often deficient, not only during the illness, but also after recovery. But the memory is very good (the patient usually shows hyperamnesia p. 25).

Manic patients are very difficult to deal with, the patience of those around them commonly becomes exhausted and may treat them harshly. Such ill-treatment will be remembered by the patient in detail, and will form the basis of subsequent complaints, owing to failure in regaining insight after recovery. Therefore, it is necessary to treat manic patient very carefully and to warn the nurses and relatives of the difficulties that might arise later on.

(C) BEHAVIOUR :

(1) Motor activity : The elation is coupled with overactivity. The patient is continuously moving and will not stay in one place (e.g. will visit all his relatives in the city in one day). Attempts to make the patient adopts a logic behaviour are resisted by him.

The overactivity leads to the following :

a) *Insomnia* which is usually one of the first symptoms and may be severe because the hyperactivity usually persists day and night.

b) *Refusal of food* because the patient can not settle down for a sufficiently long time to take a meal which he considers too trivial a matter for him to attend to. As time passes on the patient becomes exhausted and thin; constipation is usually marked.

(2) Aggression (towards others) : The hyperactive patient is intolerant to interference or restriction. If he is thwarted, this may produce aggression and violent reactions (e.g. attacking the nurses and destroying the furniture).

II – PHYSICAL MANIFESTATIONS

(1) *Complexion :* is usually ruddy and full of life.

(2) *Sexual desire :* is increased with lack of inhibition; this may result in difficulties (e.g. open trials with the opposite sex, as kissing and embracing the nurses).

(3) *Somatic manifestations* (p. 125) : these are usually absent (because the overactivity overshadows them).

COURSE : The illness usually runs a short course, varying from few weeks to 6 months, the average duration being about 3 months.

(1) It is often followed by a mild depressive phase before recovery takes place. (2) Very rarely it passes into chronic mania.

Hypomania (Fig. 46)

It shows the same manifestations of acute mania, but in a milder degree. It is therefore more difficult to recognize. It is often hard to convince the ordinary person, the relatives, the police or the judge (if the behaviour disorder leads the patient to the court) that the cheerfulness, talkativeness, overactivity and aggression constitute an illness, particularly when there is no history of a previous attack.

Course : The duration is usually for a few weeks or months. (1) The patient gradually becomes normal. (2) Sometime the hypomania passes into acute mania.

Chronic Mania (Fig. 47)

This is a rare condition, particularly after the introduction of psychoactive drugs (1) It usually starts late in life, often after 40 years. (2) The manifestations described under acute mania start and then become less acute (the excitement dies down) and persist over a period of years (20 or more).

Diagnosis of Mania : It must be distinguished from :

(1) Schizophrenic (catatonic) excitement : a) In manic excitement there are i - Affect : shows elated mood which is warm and infectious (i.. makes the attendants laugh with patient). ii - Intellect : talk shows flight of ideas. iii - Behaviour : shows contact with the environment and distractability by stimuli from it. b) In schizophrenic excitement i - Affect : mood is difficult to understand ii - Intellect : talk is incoherent and irrational. iii - Behaviour : shown no contact with the environment and the excitement is a blind, impulsive and bizarre one which is largely determined by the hallucinations and delusions present, with exhibition of stereotypy, mannerism or negativism.

(2) Organic diseases : their possibility must be born in mind. The one which might simulate manic psychosis with social disinhibited behaviour (e.g. urinating in public) is frontal lobe lesion such as a tumor or G.P.I. In such cases appropriate neurological investigation is essential.

Prognosis : The same prognosis as that of the depressive psychosis (see p. 129).

Treatment :

I – General management and nursing care (p.56) : for place of treatment, diet, bowels and important symptoms (insomnia, excitement and refusal of food).

II – Somatic treatment :

(1) Drugs : a) Major tranquilizers in big doses are very useful i - Butyrophenones : haloperidol (serenace) is the drug of choice (p. 68), the daily dose may be increased up to 30–80 mg. ii - Phenothiazines : the long acting ones (p. 70). Both major tranquilizers can be used together; they control the excitement partly by their tranquilizing effect and partly by their parkinsonian side effect. b) Lithium for resistant cases (p. 77).

(2) Shock therapy : ECT (p. 78). It seems to have less value in cutting short the duration of manic attacks than the depressive attacks. However, it can often make manic patients easier to manage. In such cases ECT is given more frequent than in depressive states e.g. daily or twice daily.

III – Environmental treatment : In most cases (acute and chronic mania) removal from home and complete isolation in hospitals is essential. Hypomanic cases can be treated at home.

IV – Psychological treatment : As a general rule, the more reactive the case (i.e. due to external psychosocial factors), the more is psychotherapy indicated. However, any psychotherapy should be postponed until the excited state of the patient calms down, allowing him to sit down to talk with.

Fig. 45 : Acute mania showing :
(1) Marked elation (whistling with her hand and mouth).
(2) The overactivity (continuously moving and has to be restrained by the nurse as seen).

Fig. 46 : Hypomaia showing mild elation, excessive making up and smoking.

Fig. 47 : A man aged 65 years with chronic mania showing excessive talking with gestures all the time.

DEPRESSIVE PSYCHOSIS (MELANCHOLIA)

Distinguishing features : We again recognize a triad of symptoms (1) Affect : depressed mood or low spirits (2) Intellect (thought) : difficulty in thinking (3) Behaviour : motor retardation. These basic symptoms are to be considered as a background or setting for the development of other symptoms that will be mentioned later.

Onset : Depressive state usually begins subacutely (less acute than manic state).

Clinical types : Depression exhibits three main grades of severity, termed respectively (1) Mild or simple depression (2) Moderate or major depression (3) Severe or depressive stupor.

Major Depression (Moderate)

I – MENTAL MANIFESTATIONS :

(A) AFFECT (MOOD) : The typical affect is that of sadness which is groundless and the patient is unable to tell why he feels as he does. The sadness is written over his face (furrowed brow with drooping mouth and the patient looks older). He looks at the world through 'dark coloured spectacles' and feels that he has no future (future is amputated). *Weeping or tears* are quite rare inspite of the grief felt by the patient (dry-eyed depression).

Diurnal rhythm (Morning-evening variation) : It is not uncommon for endogenous depression of all ages to show a daily rhythm, i.e. to feel worse in the morning and to improve somewhat towards the evening (when lifting of the cloud occurs). This variation is often connected with the poor sleep; but patients may feel worse, even after a good night sleep.

Such diurnal variation may be absent, very occasionally it is reversed (i.e. worse in the evening).

The depressed mood leads to the following :

(1) Insomnia : Is usually complained of. It is characterized by that the difficulty is not so much in getting off to sleep (i.e. not initial insomnia as in anxiety state or reactive depression), but in waking up very early (e.g. at 3 a.m.) without being able to sleep again (i.e. delayed insomnia).

(2) Refusal of food : is a common problem and the patient becomes emaciated; constipation is usually present.

Refusal of food may be due to (1) The patient feels that he is not worthy of it (as a result of self-reproach delusion). (2) He believes that his bowels are blocked (hypochondriacal delusion). (3) As a means of suicide.

Some patients eat more and gain weight; this seems to bring temporary relief to their distressing feeling.

Other types of mood change, instead of depression, may occur in some patients; (1) Total loss of feeling, the patient complains bitterly of the lack of any emotion whatsoever, including a loss of affective response to those whom he has formerly loved. (2) Smiling depression, when the patient comes with a smiling expression (camouflage) which hides the inner misery; it is seen in individuals with strong stable personality. (3) Feeling of depersonalization (p. 23) which may be the chief complaint and is very distressing (4) Feeling of derealization (p. 24).

(B) INTELLECT :

(1) Thought :

a) Stream : Retarded thinking which is difficult, slow and remain 'stuck' circling monotonously round the sorrowful experience, without being able to change the though contents. Sometimes the patient feels his head empty, without any thought content.

Talk : The patient talks in a low monotonous hesitant voice and rarely speaks spontaneously. His answers are usually short with a delayed reaction time; sometimes the question has to be repeated before an answer is obtained.

Attention : All the time the patient is preoccupied with his worries and attention to his environment is considerably impaired (noninterested in those around him). He often suffers from a feeling of isolation and loneliness. However, the patient understands everything that goes on around him. There is no clouding of consciousness, disorientation, memory or intellectual defect.

b) Content : delusions : They are usually present and result from the depressed mood, and are concerned with:

i - Conscience : Self-reproach delusions, viz the patient feels that he is wicked and guilty and has committed an unpardonable sin, and consequently unfit to mix with decent people. He blames (accuses) himself about mistakes which may be trivial dishonesty or lying e.g. he recalls that many years ago he took the bus without paying for a ticket (5 piasters); or that he lied on his parent (said that he was visiting a friend while actually he went to the cinema)

Paranoid delusions often develop secondary to this self-reproach and sense of guilt, so the melancholic starts to believe that others look at him and indicate his unworthiness by word, look or gesture (delusion of reference).

The patient may feel this supposed behaviour on the part of others to be (1) thoroughly deserved (2) partially deserved but overdone (3) slightly, if at all, deserved and grossly overdone.

ii - Fortune : Poverty delusions, viz the patient believes that he is financially ruined, or that his family is starving.

iii - Health : Hypochondriacal delusions may occur (they assume an increasing prominence in the older age group. The patient becomes more concerned with his body than with what is going in his mind (depression). He complains that his organs do not work, e.g. stomach is not digesting food, bowels are blocked, heart not beating and genital organs are decayed. Such delusions may increase to the extent that he feels himself dead (nihilistic delusions).

Perception . Hallucinations are exceptional particularly in the younger age group and should raise the suspicion of schizophrenia. However they are more common in late onset depression (involutional melancholia), often taking the form of accusatory voices which go with the depressed mood and the self-reproach delusions.

(2) Insight : The patient usually retains insight and asks for treatment (although his illness is a psychosis). Sometimes the insight is slight or absent.

(C) BEHAVIOUR :

(1) Motor activity : The depression is coupled with retardation in the motor field.

The patient sits idly in one place, gazing at the ground, with lack of gestures. When asked to do anything there is a delay of a minute or two and then the action is carried out in a slow manner and without power. When he walks the gait is hesitant, heavy with dragging of the legs and bowed posture. He has to be assisted with his dressing, feeding and going to the toilet.

Lack of will-power (Volition disturbance): There is lack of determination and indecision (hesitation).

This is present even for simple action such as changing the place of sitting or the clothes, or taking the medicine. Usually the patient experiences a feeling of lack of goal or aimlessness and a sense of floating in nothingness.

(2) Aggression (towards self) : This may take the form of slapping the face, hitting the head against the wall, strangulating the throat with hands, self mutilation as by cutting the veins or actually destroying the self by any means.

Suicide is a real danger and must always be remembered from the point of view of care of a depressed patient. The causes of suicide are : a) the feeling of sadness makes life does not worth living and results in the wish to die. b) The delusions of self-reproach and sense of guilt exaggerate this wish.

The patient sees suicide as the only way out of his illness and social isolation and loneliness. The moment when the thought is put into action can not be foretold. The early morning, when the depression is severest, carries always the danger of suicide.

The mental and motor (psychomotor) retardation associated with depression of the manic-depressive group may not infrequently act as a safeguard, since the patient is so lazy and retarded to carry out the action. However this safeguard can not be relied upon, since retardation improves before depression. This explains why the risk of suicide is specially great during the period of recovery; it is even greater than at the height of the illness.

Some patients improve, temporarily, after an unsuccessful suicidal attempt as the result of the shock of the trial.

A morbid fear for the future of the patient's dependents leads to a well-intentioned homicide before the suicidal attempt, and thus the parent (father or mother) starts by killing the children. Sometimes the shock of the homicide improves the patient and thus stops the intention of suicide, and this will lead to a very tragic situation for the patient.

II – PHYSICAL MANIFESTATIONS :

(1) Complexion : is usually sallow and the patient looks ill and older than his years.

(2) Sexual desire : a) Males : sexual desire is diminished or absent and impotence is a frequent early manifestation (and may lead to hypochondriacal and self-reproachful delusions). b) Females : menstrual disturbances are very frequent and amenorrhea occurs in about 50% of cases.

(3) Somatic manifestations : A disturbed mood causes changes, not only in the psyche, but also in the soma in every patient. As was mentioned under anxiety state, the hypothalamus is the center for emotions, and at the same time it controls both the autonomic nervous system and the endocrine system. The physical symptoms are induced via the dysfunction of these two systems which are greatly influenced by emotions. The resulting disturbance leads to troubles in all the systems of the body.

The physical (somatic) symptoms are the earliest complaints of the majority of patients who usually consult a physician believing that they are due to an organic cause. The patient may complain of one or more of the following (which are similar to those described under anxiety state (p. 84) :

a) *Generalized complaints* (not related to one system) : i - *General feeling of being easily tired,* run-down and inability to initiate activity (neurasthenia) ii - *Generalized vague sensations* such as numbness and tingling or actual pains which are non-localisable (polydynia).

b) *Nervous system :* Cephalgia in the form of headache, noises in the ears, dizziness and blurring of vision.

c) *Alimentary system :* anorexia, dyspepsia (indigestion), dysphagia, furred tongue. dryness or bad taste in mouth, constipation, diarrhea and pains (Fig. 48).

d) *Cardio-respiratory systems* · palpitation, dyspnea, precordial pain

(pseudoangina), or a sense of oppression in the chest and feeling of choking.

e) *Urine-genital :* i - The urinary changes consist of frequency or urgency and may be accompanied by sensation or feeling of pressure in the bladder. ii - The genital (sexual) changes were described.

f) *Skin changes :* excessive sweating, pallor and lowered skin temperature with cold sensation, urticaria, red blotches or neurodermatitis.

COURSE : The illness usually recovers after a course longer than that of manic psychosis (p. 118) and varying from a few weeks to one year or more. depending on the severity of depression.

(1) It may be followed by a mild hypomanic phase before complete recovery takes place. (2) Occasionally it passes to depressive stupor. (3) Very rarely the depression becomes chronic when the symptoms persist for years.

Fig. 48 : A case with recurrent depression, presenting with atypical abdominal pains. In the 3 attacks she had, 3 labaratomies were done with negative results. Observe the depression on the face and the scars of abdominal operations.

Fig. 49 : Mild (simple) depression presenting with severe chronic headache as the only manifestation.

Mild (Simple) Depression

It is most important to bear in mind the possibility of these mild attacks. The patient will complain of (1) Mild depression (2) More often of any thing but not depression, the complaint tends to be confined to physical symptoms. The patient tries to hide his true illness (depression) under something physical and he often consults physician and not a psychiatrist. For this 'masked' or hidden depression it is said : *'sorrow which has no vent in tears may make other organs weep'*. Thus *'somatization'* is a defence against awareness of distressing feeling.

The somatic (physical) complaints are usually vague, ill-defined, ill-

localized and very persistent. They may be multiple, or a single prominent symptom may mask the depression; thus mild forms of depression may be disguised as 'organ neurosis'.

The common physical complaints, are described on p. 125. An example is seen in Fig. 49.

In the mild depression : It may be impossible to get a clear statement of mood disorder from the patient; he may even deny that he is sad or depressed in any way. However, when a patient presents the physical symptoms mentioned before and when no responsible physical disease can be found, depressive state is diagnosed if :

a) The condition has persisted more or less unchanged for some months.

b) There has been a previous similar attack, perhaps some years before.

c) The premorbid personality is of the cyclic or anxious type.

d) The family history is positive.

Course : Simple depression : (1) Usually remains for months and then recovers gradually or suddenly. (2) It may pass into major depression, when the symptoms become more marked.

Severe Depression (Depressive Stupor)

This condition often follows a period of major depression. The psychomotor retardation (slowing of speech and movement) becomes so marked that the patient is in a state of stupor. He lies in bed mute, inactive and uncooperative. His bodily needs require attention in every way; he has to be fed, washed and precautions must be taken to avoid the retension of urine, faeces and saliva. The duration of illness is similar to major depression (weeks or months).

In some cases all attempts at movement are strongly resisted. In other cases the muscles are more flaccid and the body and limbs can be moulded into any position.

On the surface, it may seem as if there was a total absence of feeling or emotion, but it is often more apparent than real, for after recovery, many patients give a vivid account of the distress (depression) which they have experienced.

As regards consciousness, some patients may have a clear appreciation of themselves and their surrounding throughout the whole period of stupor; but in the majority a considerable dulling of consciousness occurs.

Alternating Manic and Depressive Psychoses

(Fig. 50 c, d & e p. 130)

Some patients suffer from recurrent alternating states of mania and depression throughout their life, with little or no interval of normality. The

symptoms do not differ from those described before under mania and depression.

Mixed Manic and Depressive Psychoses

Mixed states are formed by a combination of the cardinal symptoms of both mania and depression. These states have practical importance because they are not rare. The following types are the commonest:

(1) *Agitated depression :* The classical endogenous melancholia is depression with retardation. These classical cases are relatively rare. The majority of endogenous depressive cases fall rather into the group of mixed states, the retardation being less prominent or absent, while agitation is quite apparent.

(2) *Manic stupor :* It is extremely rare. The patient is in stupor with no activity. However his facial expression may suggest elation, and after recovery he describes euphoria and flight of ideas which he was unable to express owing to his extreme motor retardation. Manic stupor is usually a transitional stage between a depressive stupor and a manic attack.

Complications of Depressive psychosis : They are often complicated by neurotic manifestations : (1) Anxiety symptoms (2) Hysterical features (3) Obsessions.

Diagnosis of Depressive psychosis : This should pass through three steps i - to establish its presence by the cardinal symptoms ii - to assess the importance of endogenous and reactive factors iii - to exclude organic diseases.

Endogenous (psychotic) depression needs to be distinguished from :

I – Schizophrenia : The following points must be remembered (1) *Affect;* the low spirits (depression) may simulate shallowness of affect; the latter should raise the suspicion of schizophrenia. (2) *Intellect :* the thought (talk) shows : i - disturbance in stream with slowness and difficulty in thinking in both depression and schizophrenia, however in the latter ii - disturbance of form or expression (as shown by explanation of a proverb) and iii - disturbance of content and perception (as bizarre delusions and hallucination) will be evident. (3) *Behaviour* (motor activity) : schizophrenic anergia may be difficult to distinguish from depressive retardation.

Paranoid and hypochondriacal delusions are present in both, but should suggest schizophrenia if they are bizarre or incomprehensible in the light of the depressive mood. This is particularly true for hypochondriacal delusions of gross physical diseases, when seen in young individuals.

II – Other types of depression : Reactive (neurotic) depression (p. 134).

III – Organic Diseases : The commonest are the following in which careful examination will show signs of organic disease.

(1) Cerebral arteriosclerosis : may result in a depressive picture, but usually the older age, the presence in most of the cases of hypertension and neurological manifestations (e.g. pyramidal signs) will make the diagnosis easy.

Arteriosclerotic depression occurs at an age which is the same for late onset (involutional) depression. It is essentially characterized by bizarre hypochondriacal, nihilistic and paranoid delusions which occur in involutional depression. Only definite organic findings (e.g. pyramidal signs) or typical symptoms of involutional depression (p. 132) will make the differential diagnosis clear.

(2) Brain tumor : particularly the frontal lobe tumor may produce a depressive picture. The differentiation is by signs of organic disease (e.g. grasp reflex) and it may need investigations (e.g. CT).

(3) Neurosyphilis : particularly G.P.I. may produce a depressive picture. The differentiation is by signs of organic disease (e.g. pupillary changes) and serological tests for syphilis.

(4) Biochemical abnormality : in order of frequency, they are deficiency of i - thyroid ii - B_{12} iii - folic acid which can be detected by laboratory investigation. This group must be remembered if the case is resistant to ordinary treatment.

Prognosis of Depressive psychosis : The manic-depressive psychosis as a whole has a favourable prognosis. (1) The prognosis is good for the individual attacks (of depression or mania) which end in recovery after an interval of a few months (some may become well in a much less time, but other may run a longer course and a few pass into a chronic state). (2) But recurrences are common (occur in about 80%); although some patients have only one attack in their lives. In cases with recurrences, the free intervals vary from a few months to many years.

In patients with recurrences (Fig. 50) it is possible to predict about the duration of the following attack, since it is usually of the same duration as the previous one. On the other hand, it is impossible to predict about the duration of the free interval (although some recurrent cases get their attacks in the same time of the year, usually late spring and early summer (e.g. in the season of aubergine as mentioned in the common saying).

The classical manic-depressive cases are well in the intervals, although mild hypomanic phase may be noticed after the depressive state and mild depressive phase occurs after the manic state (Fig. 50 d).

In such patients with recurrent attacks, with increasing age the attacks become longer, but less severe, and the free intervals get shorter.

Seasonal affective disorder : It is depression that recurs each winter and is characterized by excessive sleep and increased appetite. It is suggested that shortage of day-light is responsible. It is treated by exposure to bright artificial light (called light therapy) during hours of darkness.

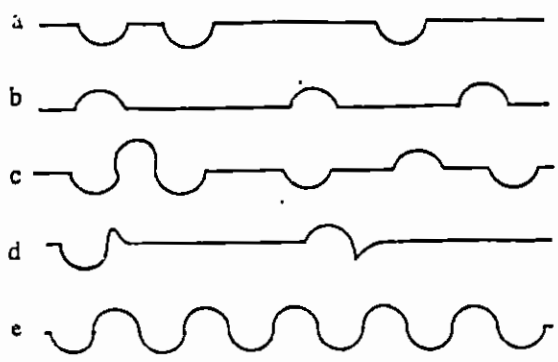


Fig. 50 : the recurrences : a) Unipolar depressive state. b) Unipolar manic sates. c) Bipolar depressive and manic states. d) Mild hypomanic phase after the depressive state, and mild depressive phase after the manic state. e) Circular type with no intervals of normality (very rare).

To determine the prognosis of a case : The points discussed under prognosis in general (p. 53) must be remembered :

(1) *The clinical picture :* In depressive state objective evidence of improvement, as observed by relatives, often precedes the patient's admission of it : a) The symptom of retardation has the highest correlation with a good prognosis. b) Hallucinations : the tendency is for the hallucinatory cases to recur more frequently than the non-hallucinatory, the actual duration of the attack is not lengthened when hallucinations are present.

(2) *The age :* When attacks recur after the age of 40 years the prognosis is guarded, because mania occurring after the age of 40 have rather graver significance than the attacks of depression; such attacks of mania are not infrequently followed by a state of chronic mania.

(3) *The etiology :* Cases determined largely by exogenous factors have a much better prognosis than the cases which resulted from purely hereditary factors. It must be remembered that manic and depressive states of endogenous type may be precipitated by emotional shock or stress; the resulting attack may last as long as did previous attacks which were not so precipitated. The characteristic feature of these endogenous illnesses, precipitated by exogenous factors, (reacto-endogenous depression) is that the content tends to lose connection with the precipitating event (i.e. the patient does no think any more about the precipitating factor).

Treatment of Depressive psychosis :

I – General management and nursing care (p. 56) : Care for diet, bowels and important symptoms (suicide, refusal of food and insomnia) is very essential.

II – Psychological treatment (p. 59) : All depressed patients require reassurance and usually obtain from it transient symptomatic relief. As a general rule, the more reactive the case, the more psychotherapy is indicated. However any intensive treatment should be postponed until the mood of the patient allows for it.

III – Somatic treatment :

(1) *Drugs :* antidepressants (p. 74), which should be continued after recovery, in half the therapeutic dose, for about 6 months.

(2) *Shock therapy :* ECT (p. 78) a) in cases which do not respond to antidepressant b) in severe cases with danger of suicide, marked agitation or stupor ECT is given with the drugs from the start.

Resistant depression : is diagnosed when it has failed to respond to antidepressants and ECT. Recently a combined treatment of antidepressant and lithium is advised.

IV – Environmental treatment (p. 57) : Mild cases can be treated as out-patients, but severe ones need hospitalization. Occupational therapy and entertainments are of help.

Prophylactic treatment of Manic and Depressive psychoses : To prevent recurrences, of both manic and depressive states mood stabilizers, particularly lithium is of help and should be continued for years (see p. 77).

If a recurrence of the affective disorder (depressive or manic phase) occurs while the patient is on lithium, the latter should be continued and the proper treatment of the disorder (phase) in question is given in addition (drugs or electric shocks).

Drug of choice : Recently it was found that for (1) Bipolar cases : lithium. (2) Unipolar cases : a) depression : tricyclic antidepressant is better than lithium. b) mania : lithium, and if no response use carbamazepine.

N. B. : Lithium and carbamazepine can be given together for cases not controlled on either drug alone.

(B) OTHER TYPES OF DEPRESSION

INVOLUTIONAL DEPRESSION (MELANCHOLIA)

It is considered nowadays as a major depressive disorder of manic - depressive psychosis (the unipolar type) of late onset. However we believe that it forms a separate category as described below.

This type of depression is diagnosed if : (1) The illness starts about the involutional period (age of 45-65 years) (2) The patient has never previously suffered from a manic or depressive phase.

Etiology : Although involutional depression is included under endogenous depression, yet it has a special position and its etiology seems to be of multiple origin.

I – Hereditary (constitutional) factor is not very important as in the depression of the manic-depressive psychosis.

(1) Morbid heredity . the family history usually does not reveal any illness of the manic-depressive type, but may show some taint of schizophrenia.

(2) premorbid personality : it is usually of the obsessional type.

II – Acquired (predisposing) factors : seem to be important.

(1) *Psychosocial factors* . After the age of 50 years the following factors or psychological stresses may be involved in an outbreak and precipitate it : a) The threat of isolation and loneliness with narrowing of the social circle due to separation of grown up offspring who lead an independent life; also due to death of friends with similar ages. b) The

Fig. 51 : Involutional agitated depression showing wringing of hands.

expectation of retirement with its associated feelings of loss of profession, social position and being unwanted. c) An additional factor works in women which is the loss of ability to bear children (the most highly prized biological possession) and the loss of physical attractiveness.

(2) *Physical factors :* the process of involution and the associated gonadal atrophy is associated with disturbance of the whole endocrine system and increased irritability of the autonomic nervous system which may precipitate an outbreak.

Age and Sex : Age of onset in females in 45 – 55 years, in males somewhat later i.e. 55 – 65. Sex : females are affected more than males (3 : 1), probably because i - the psychological factors are severer ii - the physical factors act more rapidly since the involution of the ovaries leading to menopause occurs within months, while that of testicles leading to impotence occurs gradually over years.

Clinical picture : The symptoms simulate those described under major depression (p. 122), but there are certain differences and the following are the main :

(1) *Onset :* tends to be gradual, while endogenous depression is more rapid.

(2) *Affect (Mood) :* is tense, anxious and fearful rather than sad, which is the mood of endogenous depression.

(3) *Intellect :*

a) Thought content : delusions : In endogenous depression the most important delusions are those concerned with conscience (self-reproach). In involutional depression the most important delusions are those concerned with health (hypochondriacal and nihilistic delusions).

The patient often comes because of his physical trouble in connection with the heart, stomach, intestines, etc. Only after careful inquiry he mentions his psychic disturbance (depression) which often remains hidden for a long time.

Also delusions concerned with fortune (poverty) are common. Other depressive delusions. as self-reproach and paranoid ideas, may be present as well.

b) Perception : hallucinations (mainly auditory) : are quite rare in endogenous depression, but they are not infrequent in involutional depression.

(4) *Behaviour :*

a) Motor activity : The retardation which is typical of endogenous depression is absent and instead there is extreme *agitation and restlessness,* with much sobbing and wringing of hands (Fig. 51), accompanied by stereotyped depressive utterances (phrases of hopelessness e.g. it is finished, it is finished) and gesticulations of despair (e.g. slapping face or one hand with the other).

Behaviour is not uniform like endogenous depression, some are unfriendly and rejecting in their attitude, while others come with a mass of complaints and demands.

b) Aggression (towards self): suicidal danger is more than in endogenous depression owing to the absence of motor retardation which acts as a safeguard.

Prognosis : It differs from endogenous depression in the following :

(1) The duration of the attack is usually longer (from 9 months to 2 years).

(2) The outlook is less favourable particularly those cases with marked hypochondriacal delusions and auditory hallucinations, among these the mortality rate is relatively high.

(3) Recurrences : While in endogenous depression recurrent attacks are more common than a single one, the opposite occurs in involutional depression.

Treatment : The same as for endogenous depression (p. 130), but involutional depression shows more favourable response to E.C.T.

Fig. 52 : Reactive depression with excessive weeping.

REACTIVE (EXOGENOUS, NEUROTIC) DEPRESSION

Depressive states have been classified according to the relative importance of the etiological factors into (1) *Endogenous* when the hereditary (constitutional factor plays the main role (2) *Exogenous* when the acquired (external) factors play the main role.

Pure forms of endogenous and exogenous depression are not so common as might appear from the classification. In endogenous depression an acquired external happening in the environment may play a role, while in reactive depression a hereditary constitutional element may be significant.

Etiology : (1) *Heredity :* Almost plays no role. Premorbid personality is usually of the anxious type (p. 29) (2) *Acquired factors :* the condition follows immediately upon some event (i.e. external stress p. 15 e.g. death of a dear person, or failure in examination) which makes the emotional reaction logic. The abnormality in the emotional reaction consists of its severity and prolongation (3) *Age and sex :* any age and both sexes can be affected.

Normal grief and pathological reactive depression : Normal grief lasts 6 – 10 weeks with its maximal intensity and resolves by the end of the 6th month. The existence of certain features e.g. delusions, hallucinations and suicidal thoughts indicate that the boundary between normal and pathological has been passed.

Clinical picture : It is different from endogenous depression (see major depression p. 122), and the following are the main features :

(1) *Onset :* It is acute, following the emotional shock immediately.

(2) *Affect (Mood) :* Throughout the illness the patient is miserable with sorrow, grief, despair and anxiety. He is *primarily concerned with the causative event* or situation and its possible consequences. The whole *picture is somewhat mobile,* in contrast to that of endogenous depression, which is more static and stagnating. That is to say the patient with reactive depression is influenced by the external situation e.g. he may smile with a joke.

Diurnal rhythm and Insomnia : Unlike endogenous depression a) There is no diurnal rhythm; if there is any the patient is usually worse in the evening, when he starts to be alone at home. b) Insomnia is not characterized by early awakening (delayed insomnia); the difficulty is usually in falling asleep (initial insomnia).

The patient has got some responsibility in reactive depression; he still possesses the power to overcome the crisis and we are allowed when it reaches an exaggerated degree of intensity and duration to tell the patient : Pull yourself together! We can not say that to a patient with endogenous depression, since he is not responsible for his depression, for which he can not find a cause and he is powerless to prevent a breakdown.

(3) *Intellect (Thought content) : Blame* a) The patient more commonly blames others or luck and fate more than himself for the causative situation (e.g. with failure in examination he says that the examiners were very stiff and unkind). b) Self-blame, when present, is justified or realistic (not a delusion as in endogenous depression). Thus the patient will brood over how his present condition might have been prevented. The self-reproach, therefore, is not an expression of wickedness or sin (as in endogenous depression), but an expression of regret over mistakes; the patient, so to speak, kicking himself for his folly (e.g. with failure in examination he says that he was foolish because he did not study the last chapter from which the questions came).

Illusions, pseudohallucinations, feeling of the presence of the dead person and tendency to cling to his possessions e.g. clothes (called mummification) are not rare.

(4) *Behaviour :*

a) Motor activity : Relative or complete absence of retardation is often regarded as one of the most characteristic features of reactive

depression. The patient walks restlessly up and down the consultation room. He is rather perplexed and reacts with irritation against his misfortune. He may seek escape in drugs, alcohol or sex, trying to drown his sorrows in some way or other.

The absence of retardation permits of a more lively play of facial expression; thus profuse weeping with *plentiful tears is not uncommon* (Fig. 52), whereas tears are rarely seen in endogenous depression.

Sometimes the patient shows a stuporous attitude, being incapable of any action at all, though inwardly tense and agitated.

b) Aggression (towards self) : Again the absence of retardation makes the risk of suicide always present and thus strict supervision is important.

(5) *Physical manifestations (complaints) :* They are less frequent in the early stages and increase during the course of illness, when the patient finds his way back to ordinary life, after repressing the causative experience. Here the illness begins to show physical (somatic) complaints, thus *passing from reactive to neurotic depression.* The patient will complain of dyspepsia, headache, sexual disorders (e.g. impotence), etc. In mild cases, the depression will be denied and is hidden behind the physical complaints.

Prognosis : The reactive depression is closely related to the event or situation which is responsible for its production : (1) An improvement in the external situation i.e. the etiological factor (e.g. compensation in case of financial loss) leads to a more rapid recovery than in endogenous depression. (2) If the external situation can not be changed (e.g. death of a relative), the duration of the attack can not be predicted. There is no average duration for a reactive depression, since patients vary a lot in their capacity to overcome the disorder. One case may recover after few days, while the other may remain ill for months. As a rule, the older the patient the longer the depression, because both mind and body tend to be less mobile and more rigid with advancing age.

Treatment : (1) Simple psychotherapy (2) Environmental treatment . temporary removal of the patient from the environment, which reminds him of his troubles, is of great help. (3) Somatic treatment (drugs) : a combination of antidepressants and minor tranquilizers.

CHRONIC DEPRESSION (MELANCHOLIA)

Chronic depression is one of the most prevalent forms of incurable mental disorders. A considerable proportion of the elderly patients in mental hospitals, or who are quiet enough to live at home, belong to this category

Etiology · This group is not a clinical entity, on the contrary it is made up of patients

suffering from any of the previously described forms of depression, when the condition shows no improvement after a period more than 2 years. The patients might have been cases of :

(1) Endogenous depression a) retarded or b) agitated (mixed state).

(2) Involutional agitated depression (late onset major depression).

(3) Reactive depression passing to chronic neurotic depression.

Clinical picture : It is extraordinary for how long a time many of these chronic melancholias will keep their moaning, groaning, hand- wringing and general restlessness; in some instances for 20 years or more.

Prognosis : Cases of chronic depression (as cases of chronic mania) tend to show gradual deterioration, as seen in loss of interest, shallowness of thought and lack of personal pride. The deterioration, however, never attains the depth seen in organic dementia; usually the intellectual faculties are well reserved. The cause of death is usually inanition or some intercurrent disease.

Treatment : (1) Symptomatic treatment and nursing care. (2) Psychosurgery (prefrontal Leukotomy) may be of benefit in chronic cases which failed to benefit from all other treatments.

CLASSIFICATION OF DEPRESSIVE DISORDERS

Remembering that the human organism is a psychosomatic unit, the following classification is advised :

I – Psychogenic depression :

(A) *Reactive or exogenous depression.*

(B) *Endogenous depression :*

(1) Bipolar : gets depressive and manic episodes.

(2) Unipolar : gets depressive episodes only.

a) Major depression (including the late onset involutional depression).

b) Mild depression (including dysthymia which is mild chronic depression of some years duration).

II – Somatogenic depression :

(A) *Organic depression :* It is due to morphological changes in the brain as in cerebral atherosclerosis, neurosyphilis, etc.

(B) *Secondary or symptomatic depression :* It is depression accompanying non-cerebral diseases as influenza, hepatitis, diabetes, tuberculosis, etc.

(C) *Pharmacological or iatrogenic depression :* It is depression due to side-effect of certain drugs taken for non-psychiatric diseases, such as corticosteroids, L-dopa, reserpine, etc.

II – SCHIZOPHRENIC DISORDER
SCHIZOPHRENIA

It is the most frequent psychosis, forming about 1/4 – 1/5 of the first admission to mental hospitals.

Definition : Schizophrenia (split mind) is characterized by i - Slow steady deterioration of the whole mind (intellect, affect and behaviour) which do not act in cooperation leading to splitting (dissociation) of the personality (mind) ii - Asociality (detachment) i.e. increasing withdrawal of interest from the environment iii - Occurring usually at the period of adolescence (Fig. 4 b p. 8).

(1) The oldest name for this disorder was 'adolescent insanity', but it is not quite correct since some cases develop outside the adolescent period. (2) Then it was given the name 'dementia praecox, which has two drawbacks a) many patients do not show dementia, (see prognosis) b) Some cases develop after the age of maturity (praecox means prematurity). (3) The name used now, which is the most correct, is schizophrenia, it consists of two words : a) schizo meaning splitting b) phrenia meaning mind or personality.

Such splitting or intra-psychic ataxia (incoordination) does not occur in other types of psychosis. i - In affective psychosis the intellect (thought) and behaviour go hand in hand with the disturbed affect. ii - In paranoid psychosis the affect and behaviour go with the disturbed intellect (delusions).

Etiology : Schizophrenia is a hereditary (endogenous) disease; acquired factors (psychosocial and physical stresses) can precipitate or hasten the disease, but never cause it.

I – Hereditary (constitutional) factor : This is usually marked in most of the cases as shown by :

(1) Morbid heredity : About half the cases have a positive family history of mental illnesses.

The incidence of schizophrenia among general population is about 0.85%. Study of families of schizophrenic patients showed the following : if one parent is schizophrenic 14% of children are affected, while if both are schizophrenic the figure is 40%. The figure for siblings is 10%, and for parents 6%.

The mode of inheritance is polygonic and recessive. Twin and adoptive studies have demonstrated the role of heredity. If one of a pair of uniovular (identical) twins is schizophrenic, only 60% of the partner develop the disease and in non-identical twins the figure is 15%. This is due to protection of, partly the hereditary modifying factors (non-penetrance), and partly the environmental conditions.

(2) Premorbid personality : In many cases (not less than 50%) the illness develops in a personality which is looked upon as odd or eccentric and is called schizoid or shut-in type (p. 28).

(3) Physique : Schizophrenia is relatively much commoner in people of

asthenic physique. (p. 32). It may occur in the athletic one, but very rare in the pyknic.

The closest association, however, seems to be between the asthenic physique and the hebephrenic schizophrenia.

II – Acquired (precipitating) factors : Any kind of psychosocial or physical stress may precipitate a schizophrenic illness in a hereditary predisposed person; but such predisposition is the essential factor in such cases.

(1) *Psychosocial factors :* External stresses (p. 15) are not rare as precipitating factors, and the course of illness may be modified by such psychosocial influence.

(2) *Physical factors :* (p. 16) such as toxi-infective illness (e.g. influenza) and child bearing (pregnancy, labour, puerperium and lactation).

Age and Sex : (1) The commonest age of onset is 15 – 35 with a peak around 20 (but cases in childhood, middle and early old age occur). (2) The disease is slightly more common in women than men (probably due to child bearing).

Psychopathology and Neuropathology : (see general psychopathology p.40).

(1) Macroscopic brain changes : CAT scans demonstrated in many chronic cases and some acute ones lateral ventricle enlargement, with thinner medial temporal cortex. This is of interest because patients with temporal lobe epilepsy of the of the dominant hemisphere may develop schizophreniform psychosis.

(2) Neuro chemistry : The 'dopamine hypothesis' is the most accepted theory. Dopamine is a monoamine neurotransmitter concentrated in the nigrostriatal tract and the mesolimbic system. According to the hypothesis schizophrenia is due to excess of dopamine activity in the mesolimbic system, or due to increased sensitivity of dopamine receptors. Evidence in support of this theory is that neuroleptic drugs which block dopamine receptors (D_2 type) are effective in treating schizophrenia. However there is no definite evidence that activity of the dopaminergic system is the central disorder in schizophrenia.

Clinical picture :

ONSET : Schizophrenia, in contrast to manic-depressive psychosis, develops slowly and insidiously over a long period of months or years. In a small number of cases (particularly the catatonic type) the onset may be comparatively acute (especially after infections such as influenza).

Previous to the onset the past history discovers, in nearly every case, that the patient has shown peculiarities and oddies, which were considered of no significance until the grosser symptoms presented themselves. The peculiarities are those described under schizoid personality (solitariness, shyness, undue sensitivity and day dreaming).

MANIFESTATIONS : Both mental and physical occur :

I - MENTAL MANIFESTATIONS : Schizophrenia is primarily a

disorder of thinking (intellect), but a disturbance in the three spheres of mind (intellect, affect and behaviour) occurs. The patient may show one or more of the following manifestations, any of which may start the series of events, but disturbance of the affect is usually the first, associated with disturbance of the behaviour (asociality).

(A) AFFECT (MOOD) :

(1) Quantitative emotional disturbance :

Schizophrenia often starts with vague emotional changes with mood fluctuation which may be either a) Increased : the patient becomes oversensitive, anxious or depressed; and relatives observe that he became difficult to deal with, or b) Diminished: in some cases or at a later stage, there is failure of affect, the emotional responses are shallower, less intense and less warm. This emotional blunting show itself as apathy (fig. 53) and indifference. The patient does not appreciate joy (with good news as passing in the examination), sorrow (with bad news as death of a parent), or fear as air raids and bombing during war time), but his attitude in all these emotional settings is rather one of indifference.

Fig. 53 : Patient showing apathy and dreaminess.

(2) *Qualitative emotional disturbance* : a) *Incongruity* (disharmony between mood and thought) : is another impressive feature. It is this inadequacy of affect more than anything else that distinguishes schizophrenia from other mental disorders. For example, if the patient is told some joyful news he may cry, and if told of the death of a relative he may laugh or pass some joke about it. Also the patient may say that he is happy and at the same time weeps copiously. In addition, outbursts of laughter (called giggling), for no apparent reason, are common. b) *Ambivalence* : is a characteristic feature (p. 22). It means that contradictory emotions or ideas are present simultaneously towards the same object e.g. combination of love and hate.

(B) INTELLECT :

(1) *Thought disturbances :* Talk of the patient will show :

a) Disorder of stream : Difficulty in thinking and blocking (p. 20) i - A poverty of ideas and association may be all that is noticeable at first. ii - A sudden interruption or block in the stream of thought is more characteristic.

The poverty of thought is called 'alogia'; logus means mind, so it is equal to no mind.

b) Disorder of form (expression) : Irrelevant answer, incoherent talk and neologism (p. 21) : i - In the well advanced case the thought disturbance is evident in the spontaneous utterances which sound incoherent or entirely incomprehensible. ii - Also the patient is liable to use words coined by him (neologism), thus his talk is not understandable.

The best method to demonstrate the thought disturbance (disorder of expression) of a schizophrenic is to ask him to explain the meaning of a proverb (e.g. a stitch in time saves nine).

Conversation with a schizophrenic is apt to continue without any progress being made to find out definite facts. This arises from a) the incomprehensible talk of the patient and b) his tendency to give vague answers such as : 'God knows', 'sometimes', 'probably', 'perhaps', 'may be', 'yes and no'.

Lack of rapport and sympathy of doctor towards the patient is characteristic with the schizophrenic; with depressive patient (who shows disorder of thought in stream and not in form i.e. expression) the doctor feels sympathy towards the patient.

Many schizophrenics become interested in subjects which are vague, such as spiritualism and philosophy; this is often interpreted as an over-compensation for their vaguely felt incapacity.

Fig. 54 : Auditory hallucinations.

Fig. 55 : Visual hallucinations.

c) Disorder of content and of perception :

i - Delusions : (p. 22) : They are very important; a striking feature

about the delusion in schizophrenia is their changeable and transitory nature. Delusions of reference are probably more common than the others; they arise from the patient's attitude, which is one of increased sensitiveness. Delusions of influence are very important; the patient may complain that thoughts are inserted into his head or withdrawn from it or broadcasted. Delusions of persecution are also common. Delusions of grandeur may arise as a further development, the patient believes that he is persecuted because he is the possessor of remarkable powers or because he is the prophet. Hypochondriacal delusions are very important, resulting from the patient's introversion (concerned with himself); the patient may describe in detail peculiar sensations and pain, often utilizing strange words.

ii - Hallucinations (p. 24) (Fig. 54 & 55) : Those of hearing are particularly common; they are of two types : (1) talking to the patient (second person voices), (2) two persons talking to each other about the patient (third person voices). Less common are visual (vision),olfactory (peculiar smell),gustatory (strange taste),and tactile (paraesthesia and pains).

(2) *Insight and judgement :* (p. 26) These are usually lacking; the schizophrenic has no appreciation (insight) of the serious nature of his illness and subsequently his judgement is quite wrong.

(C) BEHAVIOUR :

(1) Asociality : Detachment and a certain dreaminess mixed with hypersensitivity or emotional blunting are very striking features. The patient lives in a world of his own (in his fantasies) with which his relatives and his doctor can not come in touch. There is feeling of a glass barrier between the patient and the interviewer. He does not mix with other and looses interest in his work, hobbies, friends and finally he may stay in his room and locks the door from inside).

'Anhedonia' which means inability to feel intimate is given to such behaviour.

The lack of interest is usually so marked that *active attention* to anything is difficult. On the other hand, *passive attention* is remarkably good, so that he may remember, later, events of which he had seemed to take no notice.

(2) Motor activity disturbances : There may be hypo or hyperactivity.

a) Hypoactivity (retardation) :

i - Lack of energy (anergia) : is a frequent early symptom. Relatives usually describe the patient's poverty of initiation and loss of drive. The work record of the patient is usually the best indicator. He is frequently dismissed from his job and can give no adequate reason, or if he does, his reasons are illogical. More characteristic still is a gradual downward trend in the type of work the patient is given by his employers (e.g. after being a skilled labourer becomes an ordinary one). Finally,

because of the frequent absences, he is found unemployed, sitting at his house doing nothing.

When the loss of energy becomes severer, it leads to those chronic schizophrenics seen in mental hospitals as immobile figures sitting or standing, often in abnormal postures. The severest form of the disturbance constitutes stupor i.e. complete absence of spontaneous activity, which may be combined with abnormal suggestibility, shown in the automatic obedience (p. 20) e.g. catalepsy.

ii - Lack of will power (avolition) : This is lack of determination and indecision. It may be due to ambivalence (p. 22). The patient hesitates between strong liking and disliking,wanting and not wanting,accepting and rejecting.

This is often seen when the doctor starts to shake hands with the patient. The patient begins to hold out his hand and immediately withdraws it. The doctor then withdraws his hand, where upon the patient holds out his hand again, only to withdraw it once more when the doctor makes a response. This symptom in which a stimulus is immediately followed by automatic resistance is called negativism (p. 19).

b) Hyperactivity (hyperkinesia) :

i - Impulsive actions (p. 20) These may interrupt a state of stupor, so hat the patient may suddenly start shouting, undressing (Fig. 56), attack others or become destructive for no apparent reason. These sudden outbursts

Fig. 56 : A patient who gets impulsive actions of undressing in public .

of activity are sometimes carried out in obedience to hallucinatory voices (orders), but in other instances, patients who can provide informations are often unable to give any reason for them.

ii - Prolonged excitements are also common.

iii - Bizarre motor activity are also common (p. 19) e.g. stereotypy, mannerism, perseveration and automatic obedience (echopraxia, echolalia, cereal flexibility) are common, and make the picture appears very eccentric and bizarre (Fig. 57).

Fig. 57 : A patient showing automatic obedience with cereal flexibility (catalepsy).

(3) Aggression : it may be

a) Towards others (homicide) as in following the delusions and attacking the persecutors.

b) Towards self (suicide) as in obeying the auditory hallucinations which order the patient to do so.

PSYCHOLOGICAL FUNCTIONS UNAFFECTED IN SCHIZOPHRENIA:

(1) *Consciousness :* a) Clearness of consciousness b) Sensations and perceptions are normal (except for hallucinations). c) Orientation for time, place and person is usually normal Except that double orientation (ambivalence) may occur in response to delusions e.g. a patient may believe that he is dead and in hell, and yet may continue with ordinary hospital routine life.

(2) *Intellectual capacity :* a) Memory is good both for remote and recent events. b) Intelligence tests may give high scores (even in patients where symptoms are so marked as to interfere grossly with thinking, speaking and behaving). Any apparent intellectual deterioration arises from lack of attention and concentration.

SCHIZOPHRENIC DEMENTIA . In the later stages of the disease, there is general

disintegration of all the mental functions, which leads to a widespread change in the patient's personality, that becomes very apparent to others. The patient looses the pride in his personal appearance, gracually becomes untidy, careless, dirty and needs constant care.

POSITIVE AND NEGATIVE SYMPTOMS : (1) Positive symptoms are prominent during acute episodes and include delusions, hallucinations and formal thought disorder. (2) Negative symptoms are characteristic of chronic stage and include poverty of thought, apathy, asociality and anergia.

II – PHYSICAL MANIFESTATIONS : Those described under depression (p. 125) may be present. Also the following findings are not rare : (1) Poor peripheral circulation with cyanosis and coldness of the extremities (2) Evidence of endocrine dysfunction (particularly gonadal) (3) Various abnormalities of the physical structure (e.g. disproportion).

Clinical types of schizophrenia : Four types are described, but a) the patient may pass from one to the other b) a mixture of these 4 types is commonly found in one patient resulting into a 5th. type called the mixed or undifferentiated type.

I – SIMPLE SCHIZOPHRENIA : It tends to develop insidiously during adolescence (before the age of 20 years), and to follow a chronic course. It includes those cases which show only the fundamental loss of (1) affect (emotional blunting) (2) behaviour (anergia); and nothing else (thus it is called simple type).

In other words all symptoms are negative with no positive ones (hallucination or delusion).

II – HEBEPHRENIC (DISORGANIZED) SCHIZOPHRENIA : The onset (age and mode) and the course are similar to the simple type, but with more rapid deterioration into a dementia (i.e. called disorganized). The most prominent symptoms are (1) Affect : emotional disturbance with periods of depression and weeping, silly laughter (Fig. 58), and self-absorption (apathy). (2) Behaviour : motor activity disturbance, mainly impulsive action, excitement and bizarre activity (stereotypy, etc.). (3) Intellect : thought disturbances a) in expression with incoherence in the train of thought and language b) in content with i - hallucinations (vivid) ii - delusions (changeable, fantastic and bizarre).

The word hebephrenic comes from hebe = youth and phrenia = mind. Owing to the prominence of the emotional instability, it seems that calling this type the 'emotional' would be more suitable than calling it 'hebephrenic'.

Fig. 58 : Hebephrenic schizophrenia showing silly laughter (giggling).

Fig. 59 : A newly married young lady who developed acutely catatonic schizophrenia, showing a state of stupor with catalepsy (the raised arm is maintained).

III – CATATONIC SCHIZOPHRENIA : It commonly starts in the twenties (20 – 30 years), more often acutely than insidiously. It is characterized by *disturbance of behaviour showing episodes of* varying degrees of severity and duration (days or weeks) of (1) *stupor* (Fig. 59) and (2) *excitement*. Each episode usually subsides with an apparent complete recovery that may last for a considerable period. However, recurrences are common, and after few attacks dementia generally sets in.

The greek word 'catatonic' means a tight stretching, and the term was first applied to a mental disorder characterized by a rigid immobility tending to be increased by any outside interference.

IV – PARANOID SCHIZOPHRENIA : It is the latest in onset (30 – 50 years) and it develops insidiously. It tends to follow a chronic course, with only minimal deterioration of personality. It seem that the increased age is a) connected with in-

Fig. 60 : Female aged 35 years with paranoid schizophrenia showing a suspicious look.

creased resistance to the disease process, but b) is also responsible for the paranoid features (usually the older the individual the more suspicious he becomes).

The most characteristic features arise from disturbance of the intellect which leads to abnormal thought contents :

(1) Sensitivity and suspiciousness (Fig. 60) become very evident and gradually developed into paranoid ideas, *delusions* of reference, and then those of persecution take place. The delusions are generally non-systematized but relatively stable and various delusions often co-exist without being related or combined.

(2) The development of *hallucinations* completes the picture.

The discrepancy between the delusions, the hallucinations and the poor emotional response which they evoke is often very striking.

V – MIXED (UNDIFFERENTIATED) TYPE : This type is not rare e.g. the patient may show the following combinations (1) Catatonic outbursts in simple, hebephrenic, or paranoid schizophrenia. (2) Paranoid developments in hebephrenic schizophrenia. (3) Hebephrenic deterioration after a catatonic schizophrenia. This proves that there is a close relationship between all the four clinical types of schizophrenia.

ATYPICAL TYPES :

(1) Acute schizophrenic episode or attack (confusional type) : in which there is i - a dream-like state with slight clouding of consciousness and ii - perplexity. There are usually delusions, hallucinations and illusions. Usually a remission occurs within a few days or weeks.

(2) Pseudoneurotic schizophrenia (latent) : in which the presenting picture is similar to a neurosis (anxiety, obsessional or hysteria). However the neurotic symptoms are bizarre and vague and thorough examination will show thought disturbance, sooner or later.

(3) Schizo-affective type (Mixed schizophrenic and affective psychosis): in which i - pronounced a) manic features (schizo-manic) or b) depressive features (schizo-depressive) are intermingled with schizophrenic features, and ii - which tends towards remission with complete recovery, iii - but is prone to recur.

(4) Incipient schizophrenia : This insidious subtype usually passes into simple type over years.

(5) Residual schizophrenia : It is the case who, following a florid schizophrenic attack has become adjusted to the illness and is still showing mild signs of it.

Diagnosis and Differential diagnosis :

I – The diagnosis of schizophrenia is usually obtained from two sources :

(1) The history which reveals that the personality of the patient has changed, and that this change is schizophrenic in nature.

This change of personality may need prolonged observation. The more extroverted the personality of the patient, the more noticeable will be a change towards introversion, seclusion and emotional shallowness. On the other hand it may be very difficult to recognize such change in an introverted shut-in schizoid type of personality. In such cases it may be impossible, without prolonged observation, to distinguish mild depression or neurotic reaction from an early schizophrenia.

(2) The examination which reveals striking symptoms possessing the highest diagnostic value as follows : a) Affect which shows shallowness of emotional response. b) Intellect which shows disturbance of thought, particularly in content with delusions of bizarre character (e.g. of influence) and hallucinations. c) Behaviour which shows detachment and motor activity disturbance in the form of deficiency of energy and will-power with bizarre hyperkinesia.

II – The differential diagnosis may be needed in the following conditions:

(1) Depressive psychosis (p. 122).

(2) Manic excitement (p. 118).

(3) Organic brain diseases (particularly cerebrovascular) may cause catatonic symptoms. In such cases the discovery of organic signs (e.g. + ve Babiniski) will decide the diagnosis.

(4) Confusional states (e.g. toxic delirium) may result in a picture very similar to schizophrenia. In such cases clouding of consciousness is a marked feature, whereas it occurs only rarely and transiently in the most acute form of schizophrenia.

Course and Prognosis :

Course : There are 3 types of courses (Fig. 61). (1) Continuous (non-remittent) (2) Episodic (recurrent remissions and relapses) (3) Mixed (continuous with acute exacerbations).

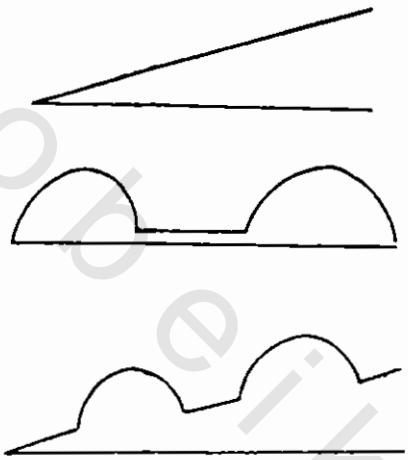


Fig. 61 : Types of course.

Fig. 62 : Chronic schizophrenia with dementia.

Prognosis : The schizophrenic reaction is the most serious (malignant) type of reaction. The general trend is towards disintegration of the personality, but the disease may become arrested at any time, leaving a defect (mental scar) which varies in degree (mild, moderate, severe), leading to 'residual schizophrenia'.

Study of cases which did not receive modern therapy showed that (1) 25% recovered spontaneously and the patient was able to go back to his previous job. (2) 50% were arrested leaving a mental scar (residual schizophrenia) of various severity; the patient could not do his previous job, but a lower one e.g. after being a teacher he could work only as a clerk. (3) 25% proceeded to schizophrenic dementia (Fig. 62). However, with modern therapy the prognosis becomes much better, and cases with dementia become rare.

The prognosis in an individual case is a matter of great difficulty, and depends upon the items mentioned under prognosis in general (p. 53).

Treatment :

I – General management and nursing care (p. 56) : Care for diet, bowels and important symptoms (excitement, refusal of food, insomnia, and suicide).

II – Somatic treatment :

(1) Drugs : major tranquilizers (p. 67) form the main treatment.

(2) Shock therapy (ECT) (p. 78) : Although electric convulsions cure attacks of the manic-depressive psychosis, they cause only amelioration in schizophrenia. So they have only a palliative effect and are subordinate to drugs, with which they can be combined. In other words ECT has no direct effect upon the course of the illness as a whole, but it causes improvement by the removal of certain symptoms which are : i - depression ii - cutting short a phase of stupor or excitement.

Chronic schizophrenics, who are subject to depression or excitement may need ECT once every four weeks (maintenance treatment); it may thus maintain a fair level of calmness with resultant diminution in the need of tranquilizers.

(3) Psychosurgery (p. 79) : It is hardly used nowadays.

III – Environmental treatment (p. 57) : (1) Change of surroundings and removal of factors which tend to produce sensitivity and paranoid ideas may result in benefit. (2) Occupational therapy is very useful; severe cases may be induced to do some purely mechanical type of work.

IV – Psychological treatment (p. 59) : Psychoanalysis has no place. Superficial psychotherapy is worth trying if i - the illness is precipitated by a psychological stress ii - the patient is accessible and has some degree of insight. Behaviour therapy may be used (p. 64 e.g. reinforcement by rewarding a desirable behaviour such as doing some work).

CHRONIC HALLUCINATORY PSYCHOSIS

Etiology and Psychopathology : It is difficult to know where to place this disorder. It is regarded as mid-way between manic-depressive psychosis and schizophrenia, and in certain aspects it resembles the paranoid reaction. On the whole and in view of the liability to dementia, it seems more akin to schizophrenia.

Clinical picture : The onset is insidious. The outstanding feature is the presence of auditory hallucinations. They are persistent voices which either blame the patient for his past misdeeds, or command him to do, or not to do, certain things. For instance they command him to perform some senseless or dangerous act, such as to jump out of a window or under a train. Or they command him not to eat, not to sit, not to sleep, etc. At first the voices are merely an annoyance; but gradually they become so persistent as to make life intolerable, leading to extreme anxiety, depression and may lead to suicide. Since the patient is completely under the influence of the voices, and is compelled to obey them without discussion, this results in a serious disorder of conduct which necessitates detention in a mental hospital.

Diagnosis : The condition differs from an obsessional state. In the latter, the patient is urged to do or say certain things, but has insight and realizes that the urge is morbid and arises

within himself. On the other hand, the patient with hallucinatory psychosis has no insight and accepts the voices as real voices arising from outside.

Occasionally an obsessional neurosis develop into a chronic hallucinatory psychosis; we recorded two sisters, one suffering from the neurosis and the other from the psychosis.

Prognosis : It is bad. The disease is a chronic one lasting for many years. In the later stages, the majority of cases become demented.

Treatment : It is incurable, has no treatment, but one has to try that used in schizophrenia.

III – PARANOID DISORDER (DELUSIONAL PSYCHOSIS)

Some authors regard this category as paranoid schizophrenia of late onset and better prognosis.

Definition : Paranoid disorder (Delusional psychosis) is characterized by a partial disorder of the mind (intellect) affecting judgement, and the dominating symptoms are delusions, the other intellectual functions show no changes (Fig. 4 c p. 8).

The delusions are non-bizarre (non-illogical) i.e. involving situations that occur in real life, such as being followed, poisoned, or loved at a distance.

A paranoid reaction (disorder) is essentially a social illness in which the patient is in an abnormal and unhealthy relationship to others, so that he wrongly believes them to be interfering with him, against him, unjust and disloyal to him.

Classification : There are mainly three groups : (1) Paranoia (2) Paraphrenia (3) Paranoid state (4) Undifferentiated type: (Chronic delusional psychosis).

Etiology : Paranoid reaction (delusional psychosis) is largely a hereditary (endogenous) disease; acquired factors (psychosocial and physical stresses) can precipitate or hasten the disease, but never cause it.

I – Hereditary (constitutional) factor : this is usually marked in most of the cases as shown by :

(1) Morbid heredity : Studies in the heredity of paranoid reaction (mainly paranoia) show a genetic connection between it and schizophrenia, but the evidence is indirect and leaves the clinical differences between the two diseases unexplained. Some authorities say that the morbid heredity is a mixture of schizophrenic and affective (manic-depressive) one.

(2) Premorbid personality : In most of the cases it it of the paranoid type (p. 28).

(3) Physique : A pyknic one is said to be commoner than other types (p. 32).

(4) Intelligence : It is not a primary factor, although of course, complicated delusional system can not be developed by stupid individuals.

(5) Sexual abnormality : Sexual abnormalities are common, particularly homosexuality and relative impotence. It is understandable that the peculiarly strong shame attached to sexual abnormality favours the development of paranoid delusions (ideas of reference).

II – Acquired (precipitating) factors : Any kind of psychosocial or physical stress may precipitate a paranoid reaction in a hereditary predisposed person.

(1) Psychosocial factors : These may be individual or generalized. a) Individual such as the existence of some complex with a great deal of shame and selfconsciousness attached to it, such as illegal sexual practice, contracting venereal infection, or stealing. b) Generalized (state of society) as living in a country where spying and secret police are real factors to be considered. With such psychological factors (individual or generalised), the effect of some trifling incidence is some times profound, e.g. a breakdown may follow the innocent visit of a policeman.

(2) Physical factors : Apart from those described on P. 16 it is interesting to remember that individuals who become deaf, are shut off from normal human communication (social isolation) and tend to be suspicious, and may develop paranoid disorder. Curiously enough, individuals that become blind do not show that tendency.

Age and Sex : Paranoid disorder is much commoner in the later decades of life. The majority occur after the age of 40 – 45 years (often at the time of climacteric or beginning of the involutional period), inspite of the presence of the premorbid paranoid personality with its frequent ideas of reference all through life. Males are affected more than females.

Psychopathology : (see also general psychopathology p. 40). It is believed that a complex forms the point of departure for the delusions and the paranoid reaction. For example, a person with very high ambitions which he can not reach, and also can not acknowledge his failure to himself (1) at first blames the environment (delusions of persecution) (2) and later believes that his ambitions have been attained (delusions of grandeur).

Whether the delusions are predominantly persecutory or grandeur depend, in part, on whether the patient was previously pessimistic or optimistic in his mood or temperament : (1) The pessimistic person magnifies his difficulties, so that every thing in the environment seems against him (delusions of persecution) (2) The optimistic, on the other hand, easily believes that his wishes are fulfilled (delusions of grandeur).

Clinical picture :

I – Paranoia

The word is derived from the greek para (beside) and nous (mind) to mean 'out of mind' i.e. unsound mind.

It is extremely rare and is the least common of the psychoses. It usually occurs in an individual with premorbid paranoid personality; the etiology is largely endogenous, though it is often precipitated by a traumatic life-experience. It is more common in men. The onset is usually insidious.

(A) Intellect : There is a partial disorder of intellect affecting judgement and this leads to appearance of abnormal thought contents. It starts with the development of a systematized delusional system growing by logical steps, but leaving the personality as such i.e. intact. The chief characteristic of paranoia is that : a) the delusions are permanent, unchangeable and unshakeable b) the delusional system becomes closely woven into, and form an integral part of the personality; consequently it exerts an important influence upon the behaviour.

The delusions are, as a rule, first of the persecutory type, often turning into the grandeur type : (1) At first the patient explains his failure to reach his high ambitions by believing that he is not given his chance. He begins to feel that he is misjudged by everyone, and any little thing which goes wrong he puts down to enemies. A frequent change of occupations, for this reason, is not uncommon. Ideas of reference are common and a gesture or a cough by another person may mean an insult to him. (2) Later, delusions of grandeur often develop. The patient says : why people are jealous of me and why they persecute me? He finds the answer by saying : I must be a great personality. This leads him to believe an state that he is a leader (Fig. 63), an inventor (Fig. 64). a millionaire, a king, a prophet or even the God. Delusion of being descended from high persons, or being loved and persecuted by some famous persons (e.g. a cinema star) have also been described.

Hallucinations are absent, though misinterpretation and retrospective falsifications of memory to fit facts into the delusional system are common (e.g. the patient says that the whistling of the train, heard yesterday, was a signal for his persecutors to start their crime, but ;he did not give them the chance).

(B) & (C) *Affect and Behaviour* : The mood of the patient is appropriate to, and the behaviour is in accordance with, his delusions. (1) Thus with

إن مفاخر الماضي والتراث الخالد خير عون لي في بعث وطني
والإنسانية من جديد والتقدم بهما نحو المجد والرقي الجمالي الإنساني
ضابط بحري لأعالي البحار
محمد فؤاد محيي الدين
٣٨ شارع محمد فؤاد – كامب شيزار – اسكندرية

Fig. 63 : A case of paranoia of years duration believing to be a leader, as evident from his card written in arabic. Observe that he gave the street he lives in his name.

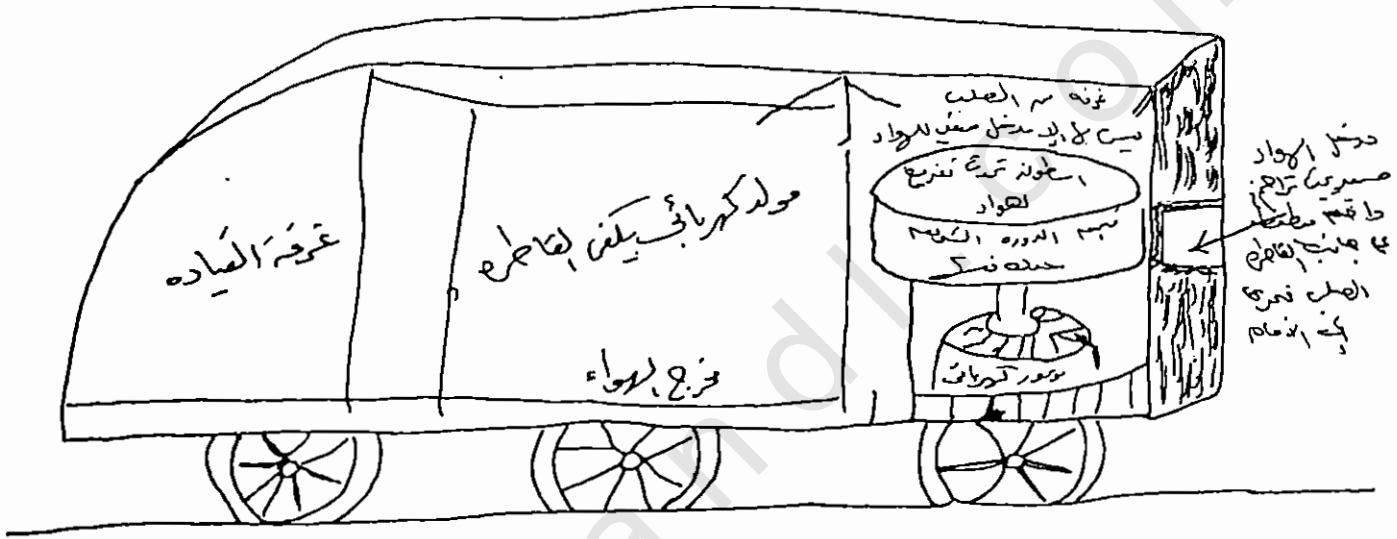


Fig. 64 : A case of paranoia aged 60 Years, believing to be an inventor and drawing a diagram for his invention (a new machine).

delusions of persecution the patient's mood will be that of fear and suspiciousness, and his behaviour becomes hostile and may attack his persecutors. (2) On the other hand that with delusions of grandeur, the mood will be happy and contented, and the behaviour will show the grandiosity by giving orders to others.

Course : It is a progressive and very chronic disorder, but the personality remains intact. The preservation of the personality may be due to one or both of the following (1) the premorbid personality is of a resistant type (2) the late onset of the disease.

Diagnosis . In paranoia the diagnosis may call for the utmost skill. Without some foreknowledge of the patient's delusions, the most expert psychiatrist may talk to him for hours without finding out what is pathological in his mind.

The alleged facts are related by the patient with so much detail, his explanations appear so logic, the whole story seems to be well knit, and he so firmly believes in its truth that, if mental disorder is not suspected, ordinary persons and even doctors may be deceived.

Communicated Insanity : In a case of paranoia, owing to (1) firm belief in his delusions, (2) the logical reasoning, (3) his well-preserved personality, the patient is often capable of convincing others of the correctness of his opinions. Persons in close relation to him (e.g. husband, wife, or children) are then liable to develop similar delusions i.e. Folie a deux or double insanity; but more than two are often involved, and whole paranoiac families or even communities have been described.

II – Paraphrenia

It is a rare disease, the etiology is largely endogenous, and there is seldom any external cause. It is more common in women, usually unmarried and living alone (Fig. 65).

The onset is insidious with the development of delusions and hallucinations, but leaving the personality as such intact (without disintegration).

(1) Delusions start by sensitiveness and irritability with ideas of reference. Gradually, the persecutory delusions are more freely expressed, and are of the most varied nature. They are usually towards the neighbors (e.g. throwing dirt on her balcony or knocking at her door); consequently the patient may change her house several times. The chief feature is that the delusions are non-illogical (non-bizarre), but show no tendency to be elaborated into a coherent system (i.e. non-systematized). The delusions may remain persecutory, or may be gradually replaced by those of grandeur.

(2) Hallucinations begin to show themselves after a period of years. They are usually auditory and closely

Fig. 65 : A woman of 50 years with paraphrenia of 3 years duration

connected with the patient delusions. Hallucinations of other senses may occur.

Course : It is similar to paranoia, being progressive and very chronic, but the personality remains intact.

Diagnosis : It is usually easy, but it has to be differentiated from:

(1) Paranoia in which a) delusions are well systematized b) no hallucinations.

(2) Paranoid schizophrenia (p. 146) in which a) The delusions are quite odd, nonsystematized, multiple, changeable, usually of the most fantastic and illogical nature. Often there are hallucinations that seem to be totally unrelated to the delusions. b) The personality (mind) shows some disintegration sooner or later (the affect shows blunting or incongruity, e.g. the patient is not annoyed by meeting his persecutors. c) The behaviour shows detachment from the environment.

III – Paranoid States = Paranoid Phases = Abortive Paranoia

Transient paranoid reactions may develop, usually in an individual with paranoid premorbid personality (1) without an apparent cause (out of a blue sky), or (2) after a mild precipitating factor or a stress. These factors may be a) psychosocial stress (traumatic life events) e.g. imprisonment b) also physical stress may act as a precipitating factor, thus paranoid states my develop acutely after operations, delivery, debilitating illnesses and fevers, especially if associated with transference to a new environment e.g. hospitalization.

Course . As a rule, such paranoid reactions, understandable in the light of the personality and the significance of the stress for the person in question, yields easily to psychotherapy (explanation and discussion). However, relapses may occur under similar circumstances.

Also many transitional states exist between such transient paranoid states and the progressive paranoia which develops from a traumatic life experience.

IV – Undifferentiated type = Chronic Delusional Psychosis.

We observed that some patients suffer from paranoid delusions for years with no other manifestations. (e.g. in jealous delusion or pathological jealousy the husband has a false belief that his wife is unfaithful to him Fig. 66). (1) *Paranoid schizophrenia* is not the diagnosis because the personality remains intact (2) *Paranoia* can not be put as a diagnosis, because there are no grandiose delusions (3) *Paraphrenia* is excluded because the patient does not get hallucinations. (4) *Paranoid* state is out of question because the disorder we are describing is a chronic one. We suggested using the title 'chronic delusional psychosis', in a manner analogous to chronic hallucinatory psychosis (Al-Garem 1961).

Fig. 66 : a) Talking about his delusions

Fig. 65 : b) Depression after killing his wife

Differential Diagnosis of Paranoid Disorders :

(1) Affective disorders :

a) Depressive disorder : depression, particularly that of late onset or the involutional type, has to be differentiated because of the same age incidence as paranoid disorders. Many depressed patients have delusions of reference that go with their self-reproach (e.g. people are talking about their wickedness). They believe that they deserve this, because of their wrong-doing. As a rule, they do not resent such treatment from others, and in this respect it is not correct to call them paranoid delusions. Another point for differentiation is that i - in paranoid disorders the delusions are the predominant feature, and any change of mood i.e. depression is based there on (secondary to them) ii - while in depression the change of mood is primary, and the development of delusions occurs next.

b) Manic disorder : Many manic and hypomanic cases (p. 118) have paranoid delusions, and believe that they are persecuted. However the other features of manic state will help in differentiation.

(2) *Organic diseases :* Paranoid reaction may occur in the course of many organic diseases, but the associated physical manifestations will differentiate.

a) Acute organic disorder (delirium) (P. 180) particularly in various intoxications (exogenous as alcoholism, and endogenous as in uremia).

b) Chronic organic disorder (p. 182) such as GPI, epilepsy, head injury and endocrine diseases (particularly myxedema).

c) Dementia (p. 190) such as senile and arteriosclerotic dementia. It is important to remember that in elderly patients paranoid delusions may appear before any intellectual deterioration is detectable.

Prognosis of Paranoid Disorders :

(1) The prognosis of the temporary paranoid states is usually good, most of the patients eventually regain their mental equilibrium, even without treatment.

(2) The prognosis of the well-developed chronic paranoid disorders (paranoia and paraphrenia) is, on the whole, extremely poor. a) In some patients the disorder does not interfere with their ordinary work, or necessitate their hospitalization. b) In more severe cases, where the behaviour is markedly abnormal, and may be dangerous to others, their hospitalization becomes a necessity.

Treatment of Paranoid Disorders : It is relatively easy in the temporary paranoid states, and very unsatisfactory in the others (paranoia and paraphrenia).

I – Environmental treatment : A complete change of surroundings for a few months may cure the temporary paranoid states.

II – Psychological treatment : May be of help in the paranoid states, but useless in the other conditions.

III – Somatic treatment :

(1) Drugs : major tranquilizers (p. 67) must be used, but usually the patient refuses taking any drug and therefore long acting preparations are given I.M.

(2) Shock therapy : ECT does not help these cases; if a considerable

degree of amnesia is produced by the sittings, it may lead to a temporary disappearance of the delusions.

N.B. When a paranoid disorder recovers completely after ECT, it is more probable that the condition was fundamentally a depressive state, with secondary paranoid delusions.

PERSONALITY DISORDERS

Definition : See p. 9

Classification : The main groups are the following three :

I – SOCIOPATHIC (PSYCHOPATHIC) PERSONALITY

Definition : (Fig. 4 d p. 8) A sociopath is a person who i - throughout his life or from an early age, ii - shows disorder of behaviour (conduct) either continual or intermittent, iii - of an antisocial or asocial kind (hence the term sociopath).

The sociopath is not a case of unsound mind (made) in term of certifiability, and is not a case of mental deficiency in term of intelligence (i.e. his intelligence is within normal limits), yet his disorder of conduct may show approximation to both categories.

The sociopath has no sense of responsibility for his actions, does not learn from experience and neither punishment, nor treatment have any ameliorative effect.

Such cases constitute a huge social problem. They are the misfits of society, and are the despair of parents, teachers, doctor, policemen and judges.

The sociopathic states are important because (1) they are not rare (2) they causes much troubles to the society (3) there are few special institutions for their treatment in Egypt.

Etiology : The cause is obscure. The factors thought to be responsible are :

I – Hereditary (constitutional) factor :

(1) Morbid heredity : Hereditary loading is considerable in many cases, with similar sociopathic personalities in the family.

(2) Premorbid personality : In a good number of cases it is of the mental instability type (p. 28) which may discharge in different directions (aggressively, inadequately, or creatively), according to the predominating psychopathological mechanisms.

(3) Physique and bodily anomalies : It is perhaps worth mentioning that bodily anomalies frequently coexist with the psychological anomalies in these cases :

a) Morphological anomalies, often called stigmata are : asthenic physique, disproportion in the measurements of the body, under development of the secondary sexual characters, or heterosexual features.

b) Vasomotor lability (tremors, restlessness, profuse sweating, blushing and fainting) and allergic disposition are frequently found, though detailed correlations have yet to be made.

II – Acquired (precipitating) factors :

(1) Psychosocial factor : Morbid family environment during childhood (p. 15) seems to play the predominating role in some cases e.g. poverty, broken homes, illegitimacy, parental over-domination or looseness, etc.

(2) Physical factors : a) Minor degree of damage to the brain (minimal brain dysfunction) play a role in some cases such as encephalitis, brain injury and idiopathic epilepsy.

Electroencephalographic studies showed that such personalities have abnormal E.E.G. (65% in the aggressive sociopaths and 32% in the inadequate sociopath) much more frequent than the normal controls (15%). This is suggestive that there is an organic abnormality in the brain of the sociopathic personalities, usually in the temporal region.

b) Delay in the development and maturation of the brain. EEG of the adult sociopath showed records normally seen only in children below 5 years, (slow theta waves) which means that the individual has not matured beyond that age.

Psychopathology : It is believed that there is an underlying emotional conflict, which is solved by attempts as (1) aggression in the aggressive sociopath (2) inadequacy in the inadequate sociopath (3) creation or domination in the creative sociopath.

Clinical picture : We classify sociopaths into three types : (1) Predominantly aggressive (2) Predominantly passive or inadequate (3) Predominantly creative.

I – AGGRESSIVE TYPE : Such sociopaths are difficult quarrelsome, touchy and impulsive from their earliest days. They exhibit disorder of conduct which has the following feature (1) It is very violent and the highest degree of violence may be directed to animals (killing cats and dogs, and strangulating birds), to people (homicide), or to themselves (suicide). (2) It is not sustained, but occurs in the form of episodes of short or long duration; the act starts suddenly and for trivial reasons, that they can be described as showing a

Fig. 67 : Aggressive sociopath with self induced wounds by a razor.

triggerlike reaction, a short circuit response, which is so characteristic of the chance, opportunity and emotional criminal. It is highly probably that at the moment of the commission of the act the consciousness is altered (clouding of consciousness, a kind of mental blindness, or split mindedness). Such changes allow for the performance of the most severe crimes with apparent cruelty and unconcern (e.g. cutting the victim into pieces), and for the varying degree of subsequent amnesia. (3) The episode, which is like a storm, is followed by a period of relative calmness, and it seems to 'clear the air' just as an epileptic fit may do. There is often a considerable insight into the occurrence, but the patient shows coldness, hardness, insensibility to the feeling of others, and absence of remorse (selfblame).

This group contains the major criminals, such as murderers, leaders of gangs, violent or armed robbery, drug addiction, alcoholism and sexual perversions associated with cruelty and criminal acts. (Fig. 67).

Diagnosis : Aggressive sociopathic reaction can frequently be observed in : (1) Other types of mental disorders e.g. schizophrenia or mania. (2) Mental deficiency, particularly the feeble-minded. However the associated manifestations will help in differentiation from sociopathic personality.

II – PASSIVE OR INADEQUATE TYPE : The members of this group are often asthenic in physique, and from their earliest days get easily tired on physical effort, and their emotions are shallow and changeable. They correspond to the individuals who provide many of life's failures. The most prominent features are weakness of willpower and determination, with easy fatiguability. This is generally shown best in their career or work record. Their absence from school or work is frequent and they readily change from one job to another, and finally increase the list of the unemployed. They can be described as debris upon the sea of life, floating from job to job and frequently submerged.

It is striking to see how the inadequate sociopaths can improve under strict guidance, not rarely under the thumb of a suitable parent or spouse (husband or wife).

This group contains the minor criminals, and the delinquents such as liars , swindlers, the person who claims that he is a doctor, that writing false cheques, thievès (non-armed) and also prostitutes.

Diagnosis : The inadequate sociopath may simulate cases of (1)

Schizophrenia, particularly the simple type (p. 145). (2) Mental deficiency, particularly the duller (border-line retardation) (p. 197). However the associated manifestations will help in differentiation.

III – CREATIVE TYPE : Well developed creativeness corresponds to the genius, and the latter is frequently associated with mental instability. A study of the genius e.g. the lives of poets, artists, musicians, leaders and outstanding personalities such as Napoleon and Hitler shows (1) not only the magnificent qualities of geniuses, high level of intelligence and distinctive output of creative nature (2) but also the unevenness of their personality, cruelty, sexual perversions, etc. In this type of sociopath there is an underlying emotional conflict which is solved by attempts at domination.

Prognosis : The picture is not so black as is, sometimes, imagined. Many sociopaths mature and become responsible, but at a much later age than the average. If a favourable change occurs, it usually takes place not before the age of 35.

Such a more or less spontaneous improvement may be accelerated and increased in frequency by proper treatment.

Treatment : The problem of the treatment of sociopath is too big a task for psychiatry alone; it needs the help of the ministries of public health, social welfare and education.

Although it may not be possible to effect any radical alteration in any deeply ingrained abnormality of personality some help can be afforded to the individuals.

I – The aggressive and inadequate sociopath : the following measures will help :

(1) Psychological treatment : Sympathetic understanding, by a detailed study of the life history, with explanations about how situation may be more adequately dealt with. In few selected cases psychoanalysis is of help.

(2) Environmental treatment : This may be essential, particularly for the aggressive sociopath. He must be cared for and treated in an institution which is neither a prison nor a mental hospital, but midway between the two. It has the firm handling of a prison and the medical care of a hospital. It is essential that the sociopath must reach a state of social responsibility before being discharged.

(3) Somatic treatment : This may be of help in the aggressive sociopath.

a) Drugs : i - Lithium or neuroleptics (long-acting depot injections). ii - carbamazepine (400mg twice daily) in patients with temporal lobe abnormality.

b) Psychosurgery : is hardly used.

II – The creative sociopath : Such genius personality has advantages to society which are usually more than his disadvantages, and it would be wrong to attempt to change him.

II – SEXUAL DISORDERS & DEVIATIONS (PERVERSIONS)

MASTURBATION

This habit is harmless and has no consequences. The public opinion that it leads to insanity, tremors, diminution of vision, tuberculosis, etc., causes anxiety. depression and a sense of guilt bound up with it. The feelings of fatigue and depression after masturbation are psychic and not physical sequelae. In general, it is more common in males (90%) than females (60%) owing to dormancy of the sexual instinct in the latter. It occurs at the following periods of life. :

I – Infancy : Between 2 – 5 years, masturbation arises as a result of accidental touching of genitals which produces pleasurable sensations. Then the infant learns to produce the same sensation by handling himself. This phase tends to die out spontaneously, and there is no need for the parents to be worried about it.

Masturbation simulating epilepsy : It is more frequently seen in girls and usually starts at age of 3 years . The episode remains 2 – 3 minutes, during which the girl keeps the hands between the thighs, stiffens the legs, with rocking movements of the body. She then stares and sweats and may be drowsy after the spell.

II – Puberty : At puberty there is a tendency for masturbation to recur. Now the act is more important because of the fantasies which are attached to it. However, it is usually dropped when normal heterosexual relations are possible.

As regards treatment, the best way is to do nothing about it. Great harm is done by efforts to stop it, such as threats of harmful consequences and constant watching. such interference will lead to (1) Excessive masturbation which may reach several times every night, as a part of the paradox that, the more one is prohibited to do a particular act, the more he tends to be driven into it (by arousing the inherent negativism). (2) Creation of a strong feeling of guilt which can be exceedingly serious and may produce psychiatric disorders. Because of that, reassurance should be given to release the feeling of guilt about masturbation and to correct the accompanying wrong believes; consequently the act will stop.

III – Adulthood : The following are the common causes :

(1) Inability to obtain a sexual outlet e.g. can not marry due to poverty or ugliness.

(2) Inhibitions e.g. the shy. timid individual is unable to make sexual relations.

(3) Sexual perversions (e.g. homosexuality), when the sufferer is either unable or unwilling to gratify his abnormal desires. In that case masturbation may be a valuable safety valve in preventing him from committing an antisocial act. Treatment is that of perversion (p. 172).

(4) Schizophrenia : Masturbation with profound worry about it is a common early feature of schizophrenia. This disease is suspected when the masturbater is not relieved from his worry and feeling of guilt by reassurance, which means that there are deeper factors involved.

IMPOTENCE

The sexual act consists of three phases (1) sexual desire or libido (2) erection (3) orgasm with ejaculation (see Al-Garem's Clear Neurology). Impotence is failure of erection, in it the sexual desire may, or may not, be present.

Causes : The common causes are the following :

I – PHYSICAL CAUSES (RARE – 10%) :

(1) Debilitating diseases e.g. diabetes mellitus and severe anaemia.

(2) Organic nervous diseases, involving the sacral (parasympathetic), or lumbar (sympathetic) segments of the spinal cord, or their outflow e.g. neurosyphilis and disseminated sclerosis.

(3) Local causes e.g. prostatitis (a rare cause and only when it causes pain).

(4) Toxic causes such as chronic alcoholism.

(5) Side effect of certain drugs, specially those used in psychiatry e.g. neuroleptics and antidepressants i.e. inhibition of the parasympathetic system which is essential for erection).

(6) Aging : The sexual act becomes weaker with the advance of age; after the age of 75 years 50% of men become impotent.

II – PSYCHOLOGICAL CAUSES (COMMON ± 90%) :

(1) Hard intellectual work and worries.

(2) Psychiatric disorders a) Neuroses mainly anxiety state, and may be hysteria b) Psychoses mainly depressive state, and may be schizophrenia.

(3) Inhibitions (repression) of varying degrees : Such cases are characterized by the presence of the sexual desire, but the patient can not carry out the act.

a) Simple causes · Careful history must be taken to determine the circumstances under which failure of intercourse has occurred, such as the place and time of act (e.g. expecting some body to come), the attitude towards the partner, and that of the partner (e.g. refusing or afraid). Impotence in the early days of marriage (honey-moon impotence) may occur, due to the husband having no previous sexual experience, or to his shyness to start the sexual relations. Also the fear of the new wife from penetration may be communicated to the husband and thus the situation becomes worse. Treatment in such cases is by reassurance and explanation.

b) Superficial causes : In some cases the impotence is due to a situation leading to a conflict between a wish to do the act and a fear of wrong doing, the latter being stronger. An example is the man who is excited by the daughter of some old friend, or by his own daughter, in such case the sexual act is repressed. even with his wife.

c) Deep causes i · Oedipus situation (sexual desire of the boy towards his mother) which is repressed with subsequent inhibition of the sexual act towards all women. ii · Identification of all women with the mother, with subsequent inhibition of the sexual act towards all females. iii - Sexual feelings aroused between brother and sister in childhood, which was considered wrong. and the desire was repressed. In adult life any attempt at sexual relationship unconsciously arouses the older desire for the sister, and consequently the whole sexual act becomes forbidden iv - The doctrine that the sexual act is something disgusting and dirty, related to urination and using the same orifices such ideas inhibit sensitive men.

Premature ejaculation Here ejaculation occurs too soon, immediately upon, or even before, entry thus constituting a variety of impotence. The causes are : (1) Excessive sexual excitement mingled at times with an element of apprehension, such cases may benefit from wearing a sheath to diminish the sensitivity. (2) Psychological inhibitions mentioned under impotence, as a result of which the sexual act, being started, does not go to its end.

Treatment :

I *In the group with physical causes* the treatment is that of the underlying cause Some drugs may be of help as they increase the sexual desire (1) Yohimbin tablets 1 – 2 t.d.s. (2) Testicular hormone, particularly in the aging group e.g. testosterone 25 mg I.M. twice weekly for 6 weeks. (3) New treatments which cause erection a) Intracavernosal injection of vasoactive drugs b) External vacuum devices

II *In the group with psychological causes*

(1) Psychological disorders require their specific treatment e.g. depression needs antidepressants and may be E.C.T.

(2) Psychological inhibitions :

a) A useful advice is to order the patient to avoid intercourse for a certain period, which may be one week in simple cases and two months in sever ones. This forbidding has two advantages to the patient i - arouses his desire by inherent negativism ii - relieves him from the responsibility to attempt something at which he is failing, with further insult and lowering of the self-esteem.

b) A minor tranquilizer is useful to reduce the tension of the patient.

c) Psychotherapy is of definite value.

i - When the cause is simple (as in honeymoon impotence) the treatment is easy. Reassurance and explanation make the patient calm and hopeful. Also the patient's wife is seen, since a sympathetic attitude on her part is very necessary. Cutting the hymen may be needed to facilitate penetration. The intercourse may be satisfactorily carried out with the man in an unusual position (e.g. lying down on his back), or he may be stimulated by some small sadistic act (e.g. biting his lips by the wife).

ii - When the cause is deep rooted, the treatment is very difficult and psychoanalysis is needed.

DYSFUNCTION IN WOMEN (FRIGIDITY & VAGINISMUS)

These are more common than impotence in men.

Definition : *Frigidity* means lack of sexual response i.e. no sexual satisfaction whatsoever, and no orgasm from intercourse. *Vaginismus or dyspareunia* (painful intercourse) is less prevalent and is due to involuntary spasm of the vaginal muscles. Such spasm makes penetration very painful or impossible, and the more the attempt, the more the reflex spasm.

Etiology : Both conditions are usually the result of psychological factors leading to inhibitions of varying degrees; vaginismus usually indicates a severer cause.

(1) Superficial cause (straight forward inhibitions) : a) Dislike or hostility towards the husband and unhappy married life. b) Fear of pregnancy, or lack of desire for children. c) Strict sexual upbringing in which the sexual act is associated with the feeling of guilt or wrong doing.

(2) Deep causes of the type discussed under impotence. (p. 168).

Treatment :

(1) Examination by a gynecologist should be made a) to exclude local pelvic causes b) for the reassurance it gives.

(2) Drugs such as minor tranquilizers and muscle relaxants.

Testosterone increases sexual responsiveness in women, but not in men unless a demonstrable testosterone deficiency is present.

(3) Psychotherapy.

a) To the women : The attitude of a number of women towards their frigidity is either, not realizing that a women should enjoy the sexual act or declaring that they do not feel any need for it. Consequently they refuse to see a doctor due to the delicacy of the whole subject. Superficial psychotherapy is needed for the superficial straight forward inhibitions, and psychoanalysis is essential for the deep seated inhibitions.

b) To the man : Many men do not realize that it may take 15 – 30 minutes to get the woman sexually aroused. Orgasm is induced largely by stimulation of the clitoris (the female counterpart of the penis), and not as commonly believed through friction in the vagina. There may be same erotic act necessary for stimulation (e.g. sucking the nipples or biting the lips during intercourse), for which the wife has a secret desire, and it was never attempted by the husband.

SEXUAL DEVIATIONS (PERVERSIONS)

I – Homosexuality : It is the commonest disorder in which the sexual object is of the same sex as the sufferer. It is more common among males than females. The incidence can never be known, but probably it is about 1–5%, affecting individuals from all ranks of society e.g. teachers, labourers, etc. The diagnosis should not be made before the age 25 years, since many individuals pass through a homosexual phase, in their adolescence.

Types : (1) Purely homosexual (2) Bisexual : usually gets more satisfaction from the homosexual than from the heterosexual practice.

Etiology : The following factors are important :

I – Hereditary (constitutional) factors : a) Some cases have excellent aesthetic taste and show strong artistic interest with a special ability e.g. in music, painting, acting, etc. b) The homosexual tendencies may be observed in other members of the same family. c) On the physical side, it is not rare to see the affected men having feminine physique, gestures and interests, and the affected women having masculine physique, gestures and interests.

II – Acquired factors :

(A) Psychogenic factors : These are working unconsciously and may consist of a) Fixation : the attraction to the same sex springs from intimate friendship so characteristic of puberty, and when relationship remains on this level the individual does not get beyond the homosexual stage to the heterosexual one b) Regression to a premature stage e.g. after failure in love with a partner from the opposite sex, the individual may regress to fall in love with one from the same sex. c) Repression : a child may become sexually excited by his sister; this forbidden desire is repressed, not only for the sister, but for other women as well, thus the individual can only make homosexual relations.

(B) Physical factors :

(1) Early conditioning : Some homosexuals appear to be the victims of early conditioning, but it is doubtful whether this is permanently effective without some constitutional or psychogenic factors. a) In a number of cases, the first sexual experience appears to have been a homosexual assault by an older man b) Many individuals who previously showed no evidence of homosexual tendencies indulge in such practices when placed in special circumstances e.g. boarding schools or prisons.

(2) Endocrinal factors : In rare conditions this may be of value e.g. a woman with a suprarenal tumor was cured from homosexuality after its removal.

II – Other perversions : These are rare and differ from homosexuality in that the sexual interest is centered on an act rather than a person. In this group an act becomes a substitute for the sexual intercourse.

(1) *Sadism and Masochism :* a) Sadism is sexual pleasure (with or without ejaculation) acquired through the infliction of pain upon others. b) Masochism is sexual pleasure derived from having pain inflicted upon. There is generally a specific type of pain, other stimuli being ineffective. The severity of pain differs widely, it may be so severe as in the homicidal sadist. The important problem of sadism is that the sufferer is rarely capable of falling in love, because his sexual object is hated, as well as loved.

Psychopathology : repression of the sexual instinct, by one reason or other, offers an explanation.

Antilibidinal drugs for sexual offenders e.g. oestrogen may be tried.

(2) Exhibitionism : It is the person (usually a male) who willfully exposes his genitalia with the intent to insult others. The sufferer usually chooses some public place e.g. park, cinema etc. The common type is the man who exposes his penis infront of women or girls. There may be sexual excitement (erection), or not at all. The act is more in a nature of compulsion. After the act, especially when there is sexual excitement, masturbation, coitus, or rarely sadistic sexual assault may occur.

Psychopathology : There is strong prohibition regarding the exposure of sexual organs in infancy, with subsequent negativism.

Diagnosis : The exhibitionism which occurs in individuals otherwise normal, has to be differentiated from the type occurring in a) Organic mental disorder, as senile and arteriosclerotic degeneration of brain. b) Mental deficiency. c) Epileptic patients (psychomotor fit and post-epileptic automatism).

(3) Fetishism : It is the individual (almost a male) who is sexually excited by the sight, touch, or thought of some object e.g. a hand bag or shoe; thus the object forms the entire satisfaction.

Psychopathology : the object has been associated with some individual, sexually attractive to the patient.

Treatment :

(1) The problems of sexual perversions must be tackled from the correct stand point, remembering that these patients are very sensitive about their condition. Their lives can be made much happier by removing the burden of the associated guilt, and getting them to realize that it is only a form of illness from which they are suffering. The less the guilt feeling, the less the compulsion to perform these acts.

(2) Curative measures are negligible and psychotherapeutic attempts must be confined to make the patient a better adjusted sufferer from the sexual perversion he has.

In male active homosexuals the intensity of the sexual drive has to be damper down by the administration of oestrogen.

(3) Preventive measures are easier than curative ones. Faulty sexual upbringing is very dangerous; the strict education tends to bring about feelings of shame and guilt in connection with the sexual matters.

III – DRUG DEPENDENCE (HABITUATION & ADDICTION)

The following terms must be clear before discussing drug dependence:

(1) Tolerance : It means that the effect of a given dose of a drug, when given repeatedly gradually diminishes, and larger doses must be given to obtain the same effect. In such cases, toxic action might result from the big doses. Some individuals are more tolerant to a particular drug than others.

(2) Habituation (psychic dependence) : It means that the repeated administration of a drug has lead to habit formation and the individual must take it regularly (e.g. tobacco and coffee).

(3) Withdrawal symptoms : (abstinence syndrome) : This occurs when habituation has developed and the drug is not given. The patient gets a psychological disturbance (anxiety and depression), and an overpowering desire to obtain the drug by any means (craving).

(4) Addiction (psychic and physical dependence) : It is a severer degree of habituation, and it is applied when the withdrawal symptoms include, not only serious psychological disturbances but also physical ones e.g. tachycardia, sweating, diarrhea, and even shock state which may be fatal, (e.g. morphine and alcohol).

The important drugs leading to dependence :

(1) Analgesics (opium and morphine).

(2) Local anaesthetics (cocaine).

(3) Hallucinogens : a) (Hashish or cannabis; Marijuana) b) Others (mescaline & lysergic acid).

(4) Sedatives and hypnotics : a) Barbiturates b) Alcohol.

(5) Stimulants : a) Amphetamine and related compounds. b) khat.

(6) Tranquilizers (Minor ones); Benzodiazepines.

Etiology of drug dependence : The following factors are important :

I – Hereditary or constitutional predisposition :

(A) Morbid heredity : some give the history of mental illness or personality disorder in the family.

(B) Premorbid personality : a vulnerable one is not rare, especially the sociopathic type.

II – Acquired factors :

(A) Psychosocial : (1) Stresses as marital or financial difficulties. (2) Availability of the drug e.g. morphine for nurses and alcohol for a bar-man.

(B) Physical : Organic nervous diseases as in dementia.

Also drug dependence may be due to underlying mental disorder e.g. manic-depressive psychosis.

OPIUM AND MORPHINE

Main Actions : (1) It has an analgesic action without significant interference with consciousness. This action is mainly on the cortex and

thalamus raising the pain threshold. (2) In small doses it produces a preliminary stage of euphoria, but abnormal ideas, imaginations and misjudgement may occur. With larger doses, drowsiness going to coma results. (3) It stimulates the parasympathetic system and leads to pin-point pupil, bradycardia, increased salivation, sweating and vomiting. (4) It depresses the respiratory center thus the breathing becomes slow and shallow. (5) It leads to constipation due to depression of the peristaltic activity and the intestinal secretions.

The addiction is usually due to the analgesic and euphorising effects.

Manifestations (Fig. 68) : Tolerance rapidly develops and the dose must be increased to obtain the satisfactory effects.

(1) Mental changes are only in the form of moral deterioration; the sense of responsibility is lost, and the addict becomes untrustful. There is no evidence of psychosis, intellectual deterioration or dementia.

There is craving for the drug, and the whole life revolves round obtaining it by any means; this may lead to any type of criminal behaviour e.g. stealing. The addict becomes lazy and neglects himself and his family, but there is no evidence of actual psychosis or dementia.

Fig. 68 : Morphine addict injecting himself.

(2) Physical changes are in the form of emaciation, injection marks (in cases of morphine), pin-point pupils, anorexia, constipation and impotence.

(3) Withdrawal symptoms occur if the addict is deprived of the drug; they are marked 1–3 days after the last dose. The patient becomes very miserable restless, sleepless with yawning, sneezing and shivering. He is full of malaise and pains, with running nose and eyes abdominal colic and diarrhea. In severe cases vasomotor collapse occurs.

Treatment : (1) The patient must be admitted to a hospital or a special unit. (2) Withdrawal of the drug may be sudden or gradual, according to the general health. Substitution of other drugs is very essential, given for few weeks or months and then stopped gradually to reduce the withdrawal

symptoms. Drugs used are : a) Methadone which is a mild opiate derivative synthesized chemically. b) Neuroleptic c) Propranolol d) Clonidine. (3) Ample diet, fluids and vitamines are necessary. (4) After discharge : i - strict supervision by reliable persons is necessary, since relapse is very common. ii - some guidance or psychotherapy will be required for the rehabilitation of the addict. iii - treatment of the etiological factors.

COCAINE

Main Actions : (1) It is a good surface anaesthetic, since it penetrates mucous membranes. By the addict, it may be inhaled as a snuff, or injected (subcutaneously or I.V.). (2) Its central action is stimulation of CNS from above downwards, chief effect being exerted on : a) cerebral cortex leading to euphoria, increase capacity to work, and vivid illusions and hallucinations, usually in the nature of wishfulfilment. b) Medulla leading to stimulation of the sympathetic system producing dilatation of pupils, tachycardia, pallor and dryness of the mucous membranes (with feeling of thirst).

The addiction is due to the stimulant action on cerebral cortex.

Manifestations : It is the most pernicious of all forms of drug addiction, and tolerance rapidly develops.

(1) Mental changes are in the form of moral deterioration. Sexual troubles may occur. a) Impotence is common in men and may lead to delusions of jealousy (e.g. unfaithfulness of wife). b) Increased libido is common in women and may lead to sexual perversions.

(2) Physical changes are emaciation, snuffing causing ulceration or perforation of the nasal septum, plus those effects resulting from sympathetic stimulation.

(3) Withdrawal symptoms consist of depression, associated with unpleasant tactile hallucination in the form of insects crawling under the skin 'cocaine bugs'. Other fearful hallucinations (auditory and visual) and a subacute delirious state may result.

Treatment : The same as for opium, but sudden withdrawal is preferred as the danger of collapse is less.

CANNABIS (HASHISH, MARIJUANA)

Main Actions : It is the most common drug habit seen in Egypt. It is smoked, chewed or swallowed. It is not an addictive drug, there is no increased tolerance, and withdrawal symptoms are very mild, if present. The

sufferer does not get moral deterioration as in the case of opium and cocaine.

Manifestations :

(1) Mental changes : a) Small doses : it has a stimulant effect leading to euphoria, talkativeness and increased motor activity. Perceptual distortion in time and space occurs (both become elastic). Depersonalization may occur with feeling of lightness in the head and floating in air. Its effect on the sexual act is by inhibiting the higher moral control and releasing the instinctive desires. Its prolongation of coitus is a false one, since the patient has distortion of time. The stimulant effect is followed by a pleasant (delicious) lassitude going to sleep with fantastic dreams. b) Larger doses, or a small dose in a susceptible individual taken for the first time, lead to a temporary toxic psychosis (delirious state) with numerous hallucinations (visual), uncontrollable laughter even to minimal stimuli, and excitement.

(2) Physical changes : Excessive hunger is felt since the drug has a hypoglycemic effect. There are no toxic side effects, and so the general condition of the patient is usually good.

(3) Withdrawal symptoms are very mild, if present, consisting of irritability and depression.

Treatment : It is relatively easy, since there is no true addiction. The same lines as for treatment of opium are followed.

MESCALINE AND LYSERGIC ACID

Main Actions : These hallucinogens are liable to produce addiction. They are used experimentally to produce 'model' psychosis, in order (1) to try to explain the obscure etiology of psychosis (2) to test the counteracting effect of new drugs, which might have a therapeutic value in psychosis.

Manifestations : They induce psychotic changes rather similar to schizophrenia, with hallucinations (particularly visual), derealization and depersonalization. There is a varying degree of clouding of consciousness. With bigger doses the intoxication leads to frank delirium.

Treatment : The same as the others.

BARBITURATES

Main Actions : They are depressants to the central nervous system, affecting all levels : cerebral cortex, cerebellum, autonomic hypothalamic centers and medullary centers (mainly respiratory). Prolonged administration will lead to a moderate degree of tolerance and addiction, but is much less

striking than that of opium.

Manifestations : Barbiturate addiction occurs under the same general conditions as alcoholism. The sufferers are usually those who can obtain the drug easily e.g. doctors, nurses and pharmacists. The prolonged administration will lead to chronic intoxication.

(1) Mental changes : These consist of impairment of a) intellectual functions with slowing and somnolence b) emotional control with instability. Occasionally a toxic psychosis occurs, characterized by hypomanic excitement, delusions, illusions and hallucinations (usually visual).

(2) Physical changes : These consist of motor incoordination of cerebellar origin, characterized by hypotonia and ataxia of station and gait, with dysarthria and nystagmus. Allergic rashes are not uncommon.

(3) Withdrawal symptoms : a) Minor symptoms include anxiety, insomnia, weakness, tremors, vomiting and cardiovascular collapse (hypotension). b) Major symptoms are convulsions of the grand mal type, and delirium similar to the alcoholic delirium tremens.

Treatment : It consists of gradual withdrawal of the drug, with proper attention to the mental state and general health. Substitution of other drugs e.g. a tranquilizer is of great help. Benzodiazepines are preferred (has anticonvulsant action) to phenothiazines (lower the fit threshold).

ALCOHOLISM

See Al-Garem's Clear Neurology

AMPHETAMINE

Main Actions : It is a stimulant of the central nervous system, acting on the cerebral cortex (higher centers). (1) It produces a feeling of euphoria, increases alertness and capacity for work and prevents sleep (causes insomnia); thus it is used in the treatment of depression, fatigue and narcolepsy. (2) It causes anorexia and thus it is used for slimming purpose in obesity.

Any of the amphetamine group of drugs (benzedrine, and methedrine) may cause habituation or addiction. The condition might start after using it to combat sleep during the pre-examination period, or to treat obesity. The amphetamine dependence is also seen in patients suffering from barbiturate and alcohol addiction, and the sufferer may shift from one drug to another.

Manifestations : Prolonged use will lead to intoxication, but there are no particular features or 'amphetamine psychosis' as a clinical entity.

(1) Mental changes : a) With small doses, a paranoid schizophrenic-like reaction develops, with delusions of persecution, and auditory and visual hallucinations. There is little, or no, clouding of consciousness. b) With big doses, a subacute delirious state develops, with insomnia, excitement and may be convulsions.

(2) Physical changes : no specific ones.

(3) Withdrawal symptoms : The patient is depressed due to the absence of stimulation, and there is a suicidal risk during this phase.

Treatment : The same as for barbiturates, but here an antipsychotic (neuroleptic) may be needed.

N.B. : The addict usually denies using the drug; fortunately the drug can be detected in the urine by the methyl-orange test.

BENZODIAZEPINES (p)

They cause habituation, but addiction may develop if therapy is continued for more than a month. The withdrawal symptoms consist of insomnia, tremors, fits, vomiting, sweating and cramps. It can be prevented by withdrawing the drug gradually, or under the cover of propranolol or an antidepressant.

SECONDARY DISORDERS = ORGANIC REACTIONS (SYNDROMES)

Manifestations ; This reaction manifests itself in the three spheres of mental functions (intellect, affect and behaviour). The mental manifestations are not specific to the causative disease and will be the same whatever the underlying physical disorders.

Importance of the constitutional factor (premorbid personality) : The make-up of the individual plays a considerable part in determining the particular symptoms which arise. Thus, the same cause and pathological process may produce different clinical pictures in different individuals e.g. two patients with alcoholic delirium or G.P.I., one may show elation while the other, on the contrary, may show depression, because the premorbid personality is of the optimistic type in the former and of the pessimistic type in the latter.

This individual personal factor plays a large part in shaping or modeling the organic reaction type, particularly in early or mild cases. However, with increase in the severity of the organic reaction, the individual differences tend to become blurred, and the clinical picture becomes nearly the same in different individuals e.g. all the cases of advanced G.P.I. or cerebral arteriosclerosis look the same.

Classification : (p. 9) The organic reaction types are subdivided into the acute and the chronic types, but there are also transitional cases in between.

In the acute type the manifestations occur with disturbed consciousness (delirium), while in the chronic type they occur with relatively clear consciousness.

Clinical grades : For both the acute and the chronic reaction types there are two clinical grades : (1) Mild (non-psychiatric). (2) Sever (psychiatric).

ACUTE ORGANIC REACTION (SYNDROME)

The following varieties are seen, starting with the mild and ending with the severe one.

(1) Organic neurasthenia : In it there is easy mental and physical fatiguability, often associated with headache and irritability. It is often seen both in the early stages, and in the convalescent period of the more severe varieties to be mentioned.

(2) Confusion = Subdelirious state (p. 18).

(3) Delirium (p. 18).

DELIRIUM

Etiology :

(1) Acute infections : as seen, particularly, in meningitis, encephalitis, influenza, pneumonia, malaria, typhoid and typhus. Children are very liable to develop a delirious state with rise of temperature due to any cause.

(2) Acute intoxications : as alcoholic, barbiturates and belladonna group.

(3) Trauma to the brain (head injury).

(4) Metabolic disorders as seen in liver and kidney failure (cholaemia and uremia), and electrolyte imbalance.

(5) Cerebral hypoxia, resulting from cardiac or pulmonary diseases, may produce a temporary confusional or delirious state.

(6) Nutritional deficiency as seen in B1 encephalopathy and nicotinic acid encephalopathy (see Al-Garem's Clear Neurology).

(7) Acute exhaustion : as seen in very severe physical stress, such as hemorrhage and prolonged labour.

(8) During the course of a) chronic organic reaction type e.g. cerebral arteriosclerosis, G.P.I., epilepsy, etc. b) primary psychoses (schizophrenia and manic-depressive psychosis). c) neuroses (hysteria).

(9) Withdrawal in drug addicts e.g. alcohol (producing delirium tremens).

Pathology : (see p. 9) The changes in the brain are mainly those seen in acute infections and intoxications; they are reversible with no permanent damage : 1) Oedema of pia-arachnoid 2) Congestion of brain substance 3) Nerve cell changes in the form of chromatolysis occur mainly in the large cells of the cortex.

Clinical picture : In the acute infections, the manifestations usually appear during the febrile stage, but might occur in the pre-febrile or post-febrile stages.

I – MENTAL MANIFESTATIONS :

(1) State of consciousness : It is clouded, and its degree constantly changes (fluctuates), tending to become worse at night (i.e. in the dark).

(2) Intellectual functions : The thought process is difficult with a) loss of recent memory b) poor attention and concentration c) disorientation for time, place and person d) bad judgement e) abnormal perception and thought contents :

i - Hallucinations and illusions, particularly visual and terrifying (e.g. snakes) are very frequent. Suicidal attempts may occur as a reaction to these fearful experiences. Less frequent are the auditory, olfactory and tactile hallucinations.

N. B. : Hallucinations of the acute organic reaction are usually visual, while those of the functional psychosis are usually auditory.

ii - Delusions of paranoid and suspicious nature are usually transient and ill-systematized.

(3) *Affective disturbances* are usually in the form of fear and anxiety.

However depression or euphoria may occur.

(4) Behaviour : There is insomnia, but when undisturbed the patient may appear deeply asleep. However, quite weak stimuli may arouse him to a state of restlessness and hyperactivity which is aimless. The patient commonly searches in the bed clothes, turns, gropes, tosses, rubs and kicks. Occupational activities are highly characteristic e.g. if the patient is a carpenter he will indulge in sawing. Wild excitement, resembling that of acute mania or schizophrenia, may occur.

II – PHYSICAL MANIFESTATIONS : In addition to those of the causative disorder (e.g. pneumonia) we find (1) Speech is slurred, low and incoherent. (2) Eyes usually show sluggish reaction of pupils and nystagmus. (3) Motor system shows tremors and ataxia. (4) Excretory functions show defective control (mental incontinence).

Diagnosis : It is usually easy, particularly in the infective group due to the presence of fever, and in intoxication if the history can be taken.

Hysterical : delirium is easily differentiated, since it follows an emotional stress with the aim of a wish-fulfillment, and the hyperactivity is bizarre, with no true clouding of consciousness.

Prognosis : It depends mainly upon the cause. In general (1) most of the cases recover completely (2) few get worse with exhaustion from the hyperactivity and pass into coma with death (3) few recover with a sequela, mainly impairment of memory.

Treatment : (1) *Specific :* for the responsible cause (e.g. malaria). (2) General : light nutritious diet with ample fluids and vitamins i.v. a) Environmental treatment : quiet place, no visitors are allowed and avoid darkness if it increases the fear. b) Psychological treatment : constant reassurance and explanation by the same doctor or nurse to make the surroundings familiar, and to avoid increasing the confusion. c) Somatic treatment : Tranquilizers. i - minor as diazepam (valium) 10–60 mg./day parenterally, but may have toxic effect as they penetrate the BBB (blood brain barrier) thus increasing confusion. ii - major as phenothiazines, and recently they are replaced by haloperidol 10–60 mg./day p.68, but it has a hypotensive effect.

CHRONIC ORGANIC REACTION (SYNDROME)

Etiology : The common causes are subdivided into two groups :

I – PRIMARY (INTRINSIC) GROUP : which is due to intrinsic degenerative disease of the central nervous system (including the higher cerebral neurons which subserve the mental functions) presenting in middle or late life. The chief types are :

(1) Senile psychosis : occurring after the age of 65. It usually advances to dementia (p.190).

(2) Presenile psychosis : the same as the senile psychosis, but occurring at an earlier age (40 - 65 years). It usually advances to dementia (p. 190).

II – SECONDARY (EXTRINSIC) GROUP : which is due to acquired pathological lesions, the chief of which are the following :

(1) Vascular : Cerebral arteriosclerosis.

(2) Inflammatory : a) Neurosyphilis : G.P.I and meningovascular syphilis. b) Non-syphilitic : mainly encephalitis lethargica, but also other types of encephalitis, meningitis, brain abscess c) Slow virus infections e.g. Jakob Creutzfeld disease.

(3) Neoplastic : intracranial tumors.

(4) Intoxications as Co poisoning, alcoholism and drug addiction.

(5) Nutritional, metabolic and endocrine disorders : as pellagra, uremia and thyroid dysfunctions.

(6) Traumatic : head injury.

(7) Epilepsy.

Pathology : It depends upon the etiology, but in general there are irreversible i.e. permanent changes in the brain (usually a progressive degeneration).

Clinical picture : It varies from one patient to the other according to (1) The constitutional personal factor (premorbid personality). (2) The age of onset. (3) The site of lesion (whether localized or diffuse). (4) The pathology of the lesion (the nature and rate of progress).

I – MENTAL MANIFESTATION : They involve the three spheres of mind (intellect, affect and behaviour), and occur with relatively clear consciousness. They simulate those of early dementia (p.190).

II – PHYSICAL MANIFESTATIONS : The clinical picture of the common causes will be described.

Prognosis : It depends upon (1) *The cause,* whether it can be dealt with or not e.g. cerebral arteriosclerosis has a bad prognosis, while a removable tumor has a good one. (2) *The treatment* in curable cases : early efficient one (as in a case with neurosyphilis or pellagra) may cause complete recovery, while cases in which the treatment is delayed usually proceed to dementia.

Treatment : It depends upon the cause.

Cerebral Arteriosclerosis

See Al-Garem's Clear Neurology. It is the commonest cause of organic mental disorder, starting usually after the age of 50 years. The diagnostic features are : (1) The mental state is fluctuating, the condition varies from day to day, or from week to week. (2) Insight, judgement and personality are preserved until a relatively late stage. (3) There is often a history of focal cerebral vascular lesions i.e. slight strokes with monoplegia, hemiparesis, hemianopia or aphasia. (4) There is usually evidence of generalized arteriosclerosis found as a rule in the retinal and peripheral vessels, with or without hypertension.

Neurosyphilis

See Al-Garem's. Clear Neurology. The G.P.I. and the meningovascular cerebral syphilis produce both mental and physical changes which are diagnostic; occasionally only mental changes are present. The diagnosis is established by positive serological tests (W.R.) in blood and C.S.F.

Encephalitis Lethargica

See Al-Garem's Clear Neurology.

Intracranial Tumors.

See Al-Garem's Clear Neurology. Mental changes occur in 60-80% of brain tumors at one stage or other. They may occur as a :

I – Focal manifestation : Here they appear early in tumors of the i - frontal lobe ii - corpus callosum (by involving both frontal lobes) iii - temporal lobe.

The picture consists of progressive mental deterioration with personality changes ending with dementia. *(1) Intellect :* difficulty in attention and concentration, and loss of memory, particularly for recent events; insight is usually lost. *(2) Affect :* may show euphoria and jocularity, irritability, or

depression. *(3) Behaviour :* the patient becomes careless about his dress and appearance, he might develop incontinence without being ashamed.

II – General manifestations of increased intracranial pressure : Here the manifestations are not early, and make their appearance when the intracranial tension is extremely high, with the triad of headache, vomiting and papilloedema. At that stage, the patient shows mental drowsiness, somnolence, confusion, semicoma and finally coma, (1) With rapid rise (e.g. hemorrhage into the tumor), the patient might pass rapidly into coma. (2) With gradual chronic rise (causing hydrocephalus), the picture of dementia is liable to occur.

Intoxications

Co poisoning : See Al-Garem's Clear Neurology

(1) In the acute stage the patient gets delirium and coma.

(2) After the acute stage, if the patient survives : a) He may recover completely b) He may develop mental and physical sequelae, either immediately, or after a latent period of few weeks. The damage occurs at two sites : i - Cerebral cortex leading to aphasia, apraxia, agnosia, akinetic mutism and dementia. ii - Basal ganglia causing Parkinsonism, athetosis, or choreo-athetosis.

Drug Addiction : (p.173).

Nutritional Disorders

Pellagra : It is the main nutritional deficiency disease found in Egypt. See Al-Garem's Clear Neurology.

Metabolic Disorders

(1) Hepatic encephalopathy : See Al-Garem's Clear Neurology.

(2) Uremia.

a) Mental manifestations : are usually fluctuating and consist of organic neurasthenia, which may go to confusion, delirium, and in severe cases to coma and death.

b) Physical manifestations : consist of i - Headache, vomiting, muscular twitching, or generalized convulsions ii - Breathing is hissing and has urinous odour. iii - Hypertension, and may be renal retinopathy. iv - Urine shows fixed low specific gravity, and blood urea is high.

(3) Porphyria (acute intermittent type) : See Al-Garem's Clear Neurology.

Endocrine Disorders

These may cause mental disorders as will be mentioned. Equally, psychological disturbances may lead to endocrine imbalance, as when, emotional shock induces amenorrhea, or precipitates hyperthyroidism.

(1) THYROID GLAND :

a) Hypothyroidism (Myxedema) : It is much commoner in females i - Mental manifestations are the earliest and consist at first of neurasthenia that passes into progressive slowing down of all mental functions and if the case is not treated the picture of dementia results. During the course, paranoid and depressive manifestations are not rare. ii - Physical manifestations consist of dryness of the skin, falling of hair, hoarseness of voice, puffiness of eyes and susceptibility to catch cold.

b) Hyperthyroidism : i - Mental manifestation consist of anxiety state with irritability and emotional lability. Occasionally affective psychosis occurs, being usually manic state, and rarely agitated depression. In thyrotoxic crisis, delirium occurs. ii - Physical manifestations consist of tachycardia, exophthalmos, tremors, and sweating.

(2) PARATHYROID GLAND : Hypoparathyroidism (e.g. after thyroidectomy) may cause anxiety and depression. Tetany, which is the usual sequela may be associated with confusion.

(3) ADRENAL GLANDS : Addison's disease : neurasthenia going to apathy and depression is common. It must be remembered that patients treated with cortisone or corticotrophin for this disease, or for other conditions, not infrequently develop hypomanic states.

(4) PITUITARY GLANDS : Acromegaly : the depressive state which may be evident in certain cases, as in other endocrine disorders (e.g. Cushing syndrome and Simmond's disease) is a psychic reaction to the physical changes and ugly transformation.

(5) SEX GLANDS : Their effect on the mental state is more evident in the females.

a) Premenstrual syndrome : It occurs in about 30% of women. There is an anxiety with depression and a mild gain in weight. This state usually precedes the menstruation, but it may accompany or follow it. It is believed to result from water retension, secondary to the disturbance of the normal

oestrogen-progesterone balance. Diuretics, minor tranquilizers, and simple psychotherapy are helpful in treatment.

Recently it was found that the pituitary hormone prolactin plays a role in the syndrome. Women that get it have a higher prolactin level than normal women with the onset of the syndrome and it shows a rapid fall with the onset of menstruation.

The drug bromocriptine (Parlodel) 2.5 mg tablet suppresses prolactin secretion and has a dramatic effect in treatment. Start on the 14th day of the cycle with ½ tablet/day, increase 1/2 tablet every day until 1 x 2 and stop with onset of menstruation.

b) Menopausal syndrome : The menopause is a normal biological process in which oestrogen lack causes i - amenorrhea ii - vasomotor instability that causes hot flushes and sweats leading to discomfort and even distress.

In about 50% of women, the hormonal changes of the menopause associated with the psychological disturbances (menopause is the symbol of loss of femininity, sexuality and motherhood) produce emotional upset in the form of neurasthenia, anxiety and depression. Replacement therapy with gonadal hormones (oestrogen), minor tranquilizers and simple psychotherapy are used in treatment.

It is doubtful if there is a corresponding state in man (male climacteric), since the hormonal changes in the male are very gradual.

Head Injury

Head injury may cause mental disorders in one or both of the following ways :

I – Organic damage to the brain : the main sequela are (see Al-Garem's Clear Neurology) :

(1) Post-concussional and post-contusional syndrome.

(2) Post-traumatic personality changes and deterioration (i.e. dementia) : It is rare and should not be diagnosed except at least 2 years after the injury, to conclude that the damage is a permanent one.

Another rare sequela is Korsakoff's syndrome.

(3) Post-traumatic epilepsy.

II – Psychological effect of the experience : it precipitates either (1) a neurosis (e.g. post-traumatic neurosis), or (2) a psychosis (e.g. manic-depression or schizophrenia) according to the premorbid personality.

Post-traumatic neurosis : It occurs with trauma to any part of the body, but it is commoner with head injury. The reason is that the individual attaches special importance to his head and brain, particularly if he is an

intellectual worker, in which case the injury is followed by marked anxiety leading to neurosis. Neither the duration, nor the severity of the neurosis is correlated with the severity of the injury.

Clinically the patient gets the same triad (headache, giddiness and mental symptoms) which is present in the post-concussional and post-contusional organic syndrome. Therefore, it is often very difficult, particularly when compensation is in question, to differentiate between the organic after effect (post-concussional syndrome) and the psychogenic one (post-traumatic neurosis). The points which favour the neurosis are a) the complaints assume bizarre qualities b) the premorbid personality is of the inadequate type (mental instability).

In compensation neurosis a final lump sum payment to end the legal situation is advised before starting the treatment of the patient.

Epilepsy.

See Al-Garem's Clear Neurology. The mental changes or psychiatric manifestations in epilepsy can be classified into paroxysmal and interparoxysmal (permanent).

I – PAROXYSMAL : Apart from the psychiatric manifestations which occur in the grand mal as a) prodromal manifestation b) in the fit during preconvulsive stage or aura, there is the epileptic psychosis or automatism which occurs either (1) *Ictal in psychomotor fit,* or (2) *Post-ictal following grand mal (and may be petit mal).* Both the ictal and the post-ictal are similar, and only the former will be described.

The psychomotor fit or temporal lobe epilepsy (clouded state) : The fit usually lasts for few minutes, and seldom more than one or two hours. It has two components, a psychic and a motor one :

(1) *Psychic component :* may show one or more of the following :

a) Disturbance of the state of consciousness : there is sudden change of consciousness which is not lost; it is clouded and the patient passes into a confusional or a dreamy state. It is liable to be associated with emotional disturbances e.g. fear, depression, or rage which may be extreme.

b) Disturbance of the contents of consciousness (perceptual disturbances) : vivid hallucinations (olfactory, gustatory, auditory and visual) which may be terrifying, and illusions are common.

(2) *Motor component :* The patient carries out coordinated acts, but semi-automatic in character, which are inappropriate to the situation and

foreign to the character of the individual. The patient may urinate or undress in public, aimlessly wander in the street, commit a crime such as stealing or even killing, without motive and with no subsequent attempt at concealment. The behaviour of a particular patient is usually the same in every fit (i.e. stereotyped).

After the fit, many patients can not remember what happened during it, or remember only a part of it, although they may have been reactive (e.g. showing resistance when interfered with). These patients must be considered unresponsible, and this is of great medicolegal importance.

Diagnosis : The psychomotor fit, particularly when prolonged, may simulate episodic neurotic states (hysterical fugue), psychotic states (schizophrenic excitement), and sociopathic states (aggressive type). Careful and detailed history, examination and observation (and occasionally E.E.G. studies) may be necessary to reach the correct diagnosis.

(1) *Hysterical fugue :* a) The symptomatology of the psychomotor fit shows i - uniformity (stereotypy) or repetition, ii - a relative simplicity as a rule iii - a complete disregard to the environment (as indecent exposure); all of which do not occur in the hysterical fugue. b) The etiology : no external cause (stress) can be discovered in the case of the psychomotor fit, while in the hysterical fugue an adequate cause can usually be discovered, which is a wish fulfilment from the point of view of the patient's personality.

(2) *Schizophrenic excitement :* It usually occurs in the catatonic type. The differentiation may be difficult during the episode, but when this is over, the patient with schizophrenia will show a residual schizophrenic symptoms, while the patient with psychomotor epilepsy will be normal.

(3) *Sociopathic state :* The episodic aggressive sociopathic state, which usually starts suddenly after a trivial reason (trigger-like reaction), may be very difficult to differentiate from the psychomotor, fit, and the E.E.G. studies may be necessary.

Petit mal status : It is one form of twilight state (p.18) and the mental state is one bordering on stupor. It occurs more in young adults than children. The E.E.G.Shows continuous spike and wave complexes. It should be considered in the differential diagnosis of a transient disturbance of mental function remaining hours or even up to 3 days.

II – INTERPAROXYSMAL (PERMANENT) : These changes occur in severe cases of epilepsy with long duration, having the onset in childhood; there is some correlation between their occurrence and the frequency of fits.

(1) Epileptic mood changes : The patient becomes subject to periodic changes of mood characterized by irritability, and he picks quarrels with great facility. Such periods may, or may not, precede epileptic attacks (grand mal). Also depressive episodes and paranoid trends are not rare.

(2) Epileptic deterioration and dementia : They are more liable to occur if the fits start early in childhood, are of grand mal type and uncontrolled by treatment. The patient shows general slowing in his action and thought, has

fewer ideas, poor memory, and looses interest in everything except himself and his fits (becomes self-centered and shows egocentricity). A curious feature is the tendency to turn towards religion. In the terminal stages, the patient shows the features of severe dementia (p. 190).

The cerebral damage leading to dementia is probably due to recurrent anoxia of the never cells, resulting from the following changes which occurs during the fits : a) vascular spasms b) great increase in cerebral metabolism with consequent increase in oxygen demands.

(3) Chronic psychosis : It may develop in chronic epileptic patients (usually cases of psychomotor fits i.e. temporal lobe epilepsy). It was observed that with left or dominant lobe foci the psychosis is of paranoid schizophrenia - like type, while with the non-dominant lobe affective psychosis is noted.

(4) Normalizing psychosis : Occasionally freedom from fits as a result of treatment is associated with some changes in personality. In such cases the treatment should consist of antiepileptics combined with tranquilizers.

DEMENTIA (MENTAL DECAY)

Definition (Fig. 4 gp. 8):the term dementia is applied to cases in which there is a permanent degeneration of mind (i.e. irreversible deterioration of mental functions).

Etiology, Pathology and Classification

The causes are the same as those mentioned under chronic organic reaction (p. 182). Therefore, these causes lead first to mental disorder and later, if the cause can not be corrected and the condition persists, dementia results from irreversible damage of the brain cells.

Dementia is classified into a primary and a secondary group, in the same manner as that for chronic organic reaction (p. 182).

I – PRIMARY DEMENTIA : which is subdivided into :

(A) Senile dementia : p. 217

(B) Presenile dementia :

(1) Without neurological manifestations : Alzheimer's disease (p.193).

(2) With neurological manifestations : Huntington's chorea; which show : i - chorea ii - dementia iii - positive family history.

II – SECONDARY DEMENTIA : The causes are the same as those mentioned under chronic organic reaction (p. 182). with the addition of the following :

(1) Some chronic neurological disorders : Parkinsonism, normal-pressure hydrocephalus, disseminated sclerosis and hereditary ataxia e.g. progressive cerebellar degeneration (although in the latter the cerebral cortex is not involved).

(2) Some chronic psychiatric disorders : They produce a form of disuse atrophy e.g. schizophrenia and manic - depressive psychoses.

Clinical Picture

At the beginning the picture varies from one patient to the other according to the factors mentioned under chronic organic reaction type (p. 182), but later on, in advanced cases, these individual differences disappear.

I – MENTAL MANIFESTATIONS : They occur with relatively clear consciousness and involve the three spheres of mind (intellect, affect and behaviour).

(A) *Intellect :* This will be apparent when we test for the following :

(1) Talk (speech) The lesion is usually diffuse in the brain and so there

is a progressive deterioration of the speech function as a whole, (dysphasia), and the speech becomes meaningless, consisting of isolated phrases or words.

(2) Thought : a) Disorder of stream as retardation and blocks denoting difficulty in the process of thinking and comprehension (understanding). b) Abnormal thought contents and perception may occur, such as delusions (particularly paranoid and hypochondriacal); also hallucinations and illusions.

(3) Orientation : There may be disorientation for time, place and person.

(4) Memory : The characteristic change is amnesia which affects first the most recent events, while the remote ones are affected much later.

(5) Attention and concentration : are defective.

(6) Insight and judgement : a) The insight may be present,but it is lost later. b) The judgement becomes bad, and so the patient's business begins to fail. However in every day semi-automatic activities of life no defect may be noticed at the start e.g. the patient can go alone to his work by the bus.

(B) *Affect :* It will show disturbance in :

(1) Emotional experience or mood : in the form of anxiety, depression, elation, or apathy.

(2) Emotional expression : in the form of emotional instability (easy laughing and weeping without a sufficient cause), and easy irritability.

(C) *Behaviour :* There will be change in the conduct and character of patient (1) A hitherto self-respecting individual may show indecent behaviour, such as irritability with acts of violence, alcoholic excess and sexual offenses. (2) Later, the patient neglects his dress and personal cleanliness and becomes incontinent. (3) At the final stage, there is a complete disintegration of the whole personality, and the patient has to be looked after, all the time, for feeding, dressing and cleaning. He does not utter a word and has a vacuous expression.

II – PHYSICAL MANIFESTATIONS : These depend upon the cause (e.g. cerebral arteriosclerosis); the common ones were described under chronic organic reaction (p.182).

Diagnosis

It is usually easy to arrive at the cause, but sometimes it is a problem.

(1) In the primary group : a) It is easy in the senile dementia because of the age, and in the presenile dementias associated with neurological manifestations, because of the latter. b) It may be difficult with the Alzheimer's and Pick's presenile dementia which have to be differentiated from the secondary group.

(2) In the secondary group : a) It is easy when dementia occurs as a sequela of a previous evident illness, such as non-syphilitic inflammatory diseases (e.g. virus encephalitis), epilepsy, head injury, chronic neurological and chronic psychiatric disorders. b) It may be a problem, particularly in the early stages of cerebral arteriosclerosis, neurosyphilis, intracranial tumor, intoxications, and deficiency disorders; hence the diagnostic features of each has to be remembered.

Treatment

I – Specific treatment : for the responsible cause (e.g. neurosyphilis), if possible.

II – General treatment :

(1) General management and nursing care (see p.56) : a) Place of treatment : if possible the patient is not admitted to a hospital or sanatorium and is kept at his home so that he will not feel isolated. Staying in bed should not be encouraged since it will lead to stiffness in joints and difficulty in walking b) Diet should be easily digestible and rich in vitamins and minerals.

(2) Environmental treatment (see p.57) : a) Environmental adjustment. b) Occupational therapy is given according to the physical ability and interest of the patient. c) Entertainments are essential and the patient should be stimulated by magazines, radio, television, etc.

(3) Psychological treatment : The minor psychotherapy (p. 60) may be of help to calm the patient.

(4) Somatic treatment (see p.65) : a) Tranquilizers for the phases of agitation, and paranoid symptoms, b) Antidepressants for depression, c) A hypnotic for insomnia, d) For the deteriorating intellectual functions : drugs which help the metabolism of the neurons such as encephabol (pyrithioxine), nootropil (piracetam) and sermion (nicergoline).

Alzheimer disease

Prevelance : It is the commonest cause of dementia, resulting in (1) Presenile dementia when it occurs between 40–60 years. (2) Senile dementia when it occurs after age of 65 years.

Etiology : Genetic predisposition exists. A dominant gene or chromosome 21 has been found in some families; the relatives had an excess of mongolism (Down's syndrome). However most cases arise sporadically. It is more common in females than males (3 : 2).

Pathology : (1) Macroscopically there is shrinkage of the brain causing enlargement of the ventricles and sulci. (2) Microscopically there are three changes. a) Neuronal loss and astrocyte proliferation. b) Senile plaques in the grey matter (cortex) which have argyrophilic cores containing an amyloid like substance. c) Neurofibrillary tangles i.e. the normal fibers in the white matter form tangles called Alzheimer's neurofibrillary degeneration. (3) Neurochemistry : brain shows deficiency of the enzyme concerned in the synthesis of acetylcholine, and defective cholinergic transmission is supposed to be the basis of the symptoms.

Clinical picture : The onset is insidious with a steadily progressive demented course. Loss of recent memory is usually the first symptom. It is followed by deterioration of speech, practice and recognition leading to dysphasia, apraxia and agnosia (i.e. parietal lobe dysfunction). Profound disintegration of personality develops, while the physical health of the patient appear perfect. Terminal cases may develop focal neurological signs, (e.g. extrapyramidal), fits, delusions and hallucinations.

Diagnosis : is made on clinical grounds as there is no laboratory test which helps. E.E.G. is always abnormal, with theta and delta waves, and reduced alpha rhythm.

Prognosis : most patients die 5 years after the onset of dementia from poor hygiene, failing self-care, and pneumonia.

Treatment : is that of dementia. Drugs enhancing cholinergic activity (e.g. lecithin, choline and physostigmine) have doubtful benefit.

MENTAL DEFICIENCY (SUBNORMALITY, RETARDATION, AMENTIA)

Definition : Mental deficiency denotes a condition of subnormal mental development existing from birth, or before the age of 18 years, leading to incapacity for independent adaptation to demands of society, and characterized mainly by low intelligence.

Mental deficiency (amentia) is distinct from dementia in that the mind has never been normal (has failed to reach a normal stage of development). Dementia is like an individual who was rich and became poor, while amentia (deficiency) is like an individual who is poor all his life.

We choose intelligence (intellectual functions) as an indicator for the state of mind, although actually the mind consists of intellectual, affective and behaviour aspects (spheres).

INTELLIGENCE : It is the capacity to adapt to new situations and problems using past experience.

The intelligence of the individual continues to grow till the age of maximal mental maturity (16–18) years, when no further increase occurs. After that age, the mind continues to become better, not due to increase in the degree of intelligence, but due to the acquired experience of the aging process and years.

Measurement of intelligence : It is assessed by intelligence tests of increasing levels of difficulty. The psychologists arranged such tests in age groups. For each year, up to the age of 16 a series of tests are chosen in such a way that the average individual of such age is able to pass all the tests. So the psychologists evaluated the tests with the individuals, before the evaluate the individuals with the tests.

Examples of intelligence tests :

1. One year : Can point to eyes, nose and mouth. Imitates movements. Obeys simple commands. Child should be able to stand and walk with help, and has six teeth.

2. Two years : Has a vocabulary of about 200 words, and composes sentences of two or three words. Names common objects e.g. spoon, cup, chair, etc. Has control over bladder, and has 16–20 teeth.

3. Three years : Knows names and uses of many common objects. Build patterns with bricks. Puts on shoes. Knows his name and surname.

4. Four years : Repeats a sentence of 6–8 words. Repeats 3 digits. Knows which is the longer of two lines. Compares faces shown by photograph (pretty and ugly).

5. Five years : Copies a square. Repeats 4 digits. Carries out a triple order (e.g. stand up, open the door and shut the window). Compares weights. Names 4 primary colours when shown to him (e.g. white, black, red and yellow).

The intelligent quotient (I.Q.) Each intelligence test is given a quantitative value of 2–4 months. The total tests passed by the individual are expressed in so many years and months, which give his mental age. The chronological age of the individual is found out. Consequently the I.Q. is calculated in the following way :

$$\text{I.Q.} = \frac{\text{Mental age}}{\text{Chronological age}} \times 100$$

The I.Q. of most normal individuals is about 100 (lies between 90–110). Therefore, if the mental age is equal to the chronological one the individual is of an average intelligence, if it is more he is of high intelligence, and if it is less he is of low intelligence.

PHYSICAL DEVELOPMENT : Amentia is usually associated with delay in the physical development. The dates of normal milestones of a child are: (1) 4 months hold the head above the pillow (2) 6 m. sit up unaided (3) 12 m. stand up (4) 18 m. walk and control bowels (5) 2 years control bladder (6) 3 y. feed himself (7) 5 y. wash and dress himself (8) 15 y. independent existence.

Incidence : The incidence of amentia is about 4 per 1000, with slight preponderance of males. The incidence of the different grades of defect is inverse to the degree of defect, thus idiots form about 5%, imbeciles 20% and feeble minded 75%.

Etiology and Pathology : Mental deficiency may result from hereditary or genetic causes (called primary amentia) or from acquired or environmental causes (called secondary amentia). Some cases result from combination of both causes.

I – Primary amentia (intrinsic) : This is the most frequent and comprises about 80% of cases. It is hereditary, and the result of a chromosomal or gene abnormality which causes imperfect neuronic development of the brain. Consanguinity of parents is not rare in this group.

II – Secondary amentia (extrinsic or environmental) : This is less common and comprises about 20% of cases. It is due to some adverse environmental factor (disease or injury) causing imperfect neuronic development of the brain, any time between conception (the fertilization of the ovum) and the age of 17 years. The environmental factors may work at the following periods :

(1) Before birth (Antenatal or intrauterine) a) Teratogenic effect of drugs e.g. most of the psychotropic drugs. b) Infections, particularly German measles, maternal toxoplasmosis, and syphilis. c) Irradiation of the pelvis. d) Trauma to mother. e) Nutritional deficiencies. f) Toxemias as eclampsia.

(2) At birth (Perinatal) : a) Anoxia. b) Birth trauma (e.g. by forceps) which may cause intracranial hemorrhage (cerebral palsy e.g. hemiplegia is liable to result). The premature infant is specially at risk due to its rapid delivery, with quick, excessive moulding of the skull.

(3) After birth (Postnatal) up to the age of 17 : a) Rhesus incompatibility leading to kernicterus (sever neonatal jaundice). b) Infections : encephalitis, meningitis. c) Endocrine disorders as hypothyroidism (cretinism). d) Nutritional deficiency as pellagra. e) Head injury which is a rare cause (often claimed by parents to be responsible). f) Epilepsy.

Clinical picture : There are mental and physical findings :

I – MENTAL STATE : The following three grades are described (Fig. 69).

a) b) c)

Fig. 69 : Mental Submormality a : a) Idiot b) Imbecile c) Feeble-minded

(1) Idiocy (severely retarded, dependent) : The I.Q. is below 20 and the mental age is below 4 years. It forms about 5% of the defectives. Such individual is unable to guard himself against common dangers of life e.g. fire, sharp instruments and traffic. He can not learn to care for his bodily needs e.g. toilet habits, feeding, washing and dressing. He requires continuous supervision & care, like infants, and hence the name dependent. He does not talk beyond a few words and can not construct sentences. Mortality rate is high before reaching adult life, as he is prone to develop physical illnesses and fatal complications (e.g. pneumonia).

(2) Imbecility (moderately retarded, trainable); The I.Q. lies between 20–50, and the mental age between 4–8 years. It forms about 20% of the defectives. Such individual can be trained for toilet habit, and to feed and dress himself, hence the name trainable. He talks a little, but can not learn to read and write. Although he is unable to earn a living independently, he may be taught simple tasks, as scrubbing the floor or polishing the shoes, but he requires a considerable amount of supervision, even for such simple jobs.

(3) Feeble-mindedness (mildly retarded, educable) : The I.Q. lies between 50–70 and the mental age between 8–12 years. It forms about 75% of the defectives that are called morons. Such individual can not benefit from ordinary schools, and requires special ones for his education, hence the name educable. With training, he can manage his own affairs, and can earn a living independently, by doing routine domestic duties e.g. washing and cleaning, working as a farm labourer, as a scavenger, or as a guard in a public W.C. In developed countries such individuals are often useful members in the society, not easily replaced for the performance of such dull and simple tasks.

It must be remembered that the intellectual defect is often associated with poor self-restraint leading to hyperactivity and anomalies of behaviour, thus a number of feebleminded individuals become sociopathic (criminals and prostitutes).

Idiot savant : Some feeble-minded individuals are very clever in a certain intellectual ability e.g. arithmetical (multiplying several numbers in their mind) or musical (knowing by heart many musical notes). Such individual is called idiot savant, although he is not in the category of idiocy as regards the I.Q.

(4) Duller (border-line retardation, backwardness) : The I.Q. is just below the average i.e. 70–90. It is not rare among the general population, forming about 15% of them. The individual may benefit from education at ordinary schools, but he is often at the back of the class, with repeated failures. He can adjust himself to a simple environment, without any social incapacity.

II – PHYSICAL STATE : Some physical abnormalities may accompany mental deficiency. Their incidence is proportionate to the severity of defect, thus they are more common in idiocy, less in imbecility, and least in feeble-mindedness. They result from abnormalities (developmental or congenital) in the nervous system, or other systems of the body e.g. musculo-skeletal. The most common are the following :

(1) Motor dysfunctions : a) Cerebral palsy which may range from simple clumsiness and speech difficulties, to severe spastic hemiplegia and diplegia. b) Ataxia which is usually cerebellar in type. c) Involuntary movements which are usually choreo-athetotic.

(2) Epileptic fits : Both idiopathic and symptomatic types occur. Any type of fit may be seen e.g. grand mal, petit mal, psychomotor, and Jacksonian fits.

(3) Change in size and shape of head : the commonest are :

a) *Microcephaly :* The head is not only small in size (circumference less than 42 cm.), but it has also a characteristic shape, with markedly receding forehead and chin, between a face of a normal size. The primary pathology is in the brain which normally stimulates the skull to grow; in microcephaly there is general hypoplasia of the cerebral hemispheres. The etiology of such cerebral hypoplasia may be : i - primary (genetic) ii - secondary (mainly due to irradiation of pelvis during pregnancy, and maternal German measles).

b) *Hydrocephalus :* congenital hydrocephalus (See Al-Garem's Clear Neurology).

Amentia with other forms of mental abnormality : It seems that there is a close relationship between the three forms of mental abnormality (disorder, dementia and amentia). The individuals with amentia differ from the normal individual in that their brain seems to be vulnerable and a considerable proportion of them tends : (1) To develop a mental disorder (neurosis as hysteria and psychosis as grafted schizophrenia) which is more easily precipitated by environmental stresses (due to their incapacity for adaptation), and it is usually transient. (2) To pass into a state of dementia.

Diagnosis : The diagnosis of subnormality passes through three stages :

I – Determining the degree of subnormality : The intelligence tests are of help in that, but it must be remembered that they are unreliable below the age of 3 years.

II – Determining the cause of subnormality : This necessitates (1) Detailed history taking e.g. family history of subnormality, health of the mother during pregnancy, difficult labour, childhood illnesses and trauma. (2) Careful physical examination of all the body, particularly the nervous system (3) Investigations, particularly biochemical ones, for inborn errors of metabolism.

III – Differential diagnosis : Two groups of conditions may simulate subnormality;

(1) Children with developmental speech defects may be misdiagnosed as being intellectually backward. The only way to differentiate is by making a very careful examination.

(2) Children with psychoses, particularly autistic schizophrenia; but the latter condition will show that the child was normal at the start, with subsequent deterioration.

Treatment :

I – Preventive measures and dealing with the cause :

(1) *Primary amentia :* The increasing knowledge of the genetics of subnormality may provide genetic counselling. Thus prevention of marriage

and birth control of susceptible transmitters will diminish the number of offspring with subnormality.

(2) *Secondary amentia :* These are prevented by control of environmental factors which may injure the child before, during and after birth. Thus antenatal, perinatal (childbirth) and postnatal care, with vaccination against infectious diseases are important.

(3) *Treatment is possible in the following syndromes,* but it should be carried out very early, otherwise irreversible cerebral damage with severe subnormality results : phenylketonuria, hepatolenticular degeneration (Wilson's disease), galactosaemia, cretinism and congenital syphilis.

II – Symptomatic treatment: This has to be determined by a case conference attended by a psychiatrist, psychologist, social worker, nursing, teaching and occupational therapy staff.

(1) Community care : The subnormal should be cared for at home, if possible. In severe cases, hospitalization may become a necessity.

(2) Medical care : Tranquilizers may be required for excitability and behaviour disorders; recently beclamine (posedrine) is a specific antiaggressive agent tablet 3 t.d.s; muscle relaxants for spasticity; antiepileptics for fits; physiotherapy for paralysis, ataxia and deformities. Glutamic acid and recently encephabol and gamalon are used to improve the mental state. Hemispherectomy operation may be needed in cases with congenital and infantile hemiplegia associated with behaviour disorder and fits.

(3) Teaching and training : Special schools and occupational centers are required. The subnormal should, as much as possible, learn good habits, acceptable social attitudes, reading, writing, simple calculation, and a training in a job which will suit him. Reward should be given immediately after the desired behaviour has taken place (e.g. using the toilet). He may be employed in the unskilled or semi-skilled jobs e.g. in a farm, garden, as a porter, or in a simple factory work.

SPECIAL FORMS OF SUBNORMALITY

The majority of the individuals with subnormality show no specific physical features to distinguish them from those with normal intelligence. A minority belong to the special forms which we are going to describe :

I – Primary Amentia :

(A) DOMINANT INHERITANCE :

(1) Tuberous sclerosis (Epiloia) : (See Al-Garem's Clear Neurology). It is due to a developmental abnormality involving the neuroectodermal system. It is characterized by a) Mental deficiency b) Epilepsy c) Sebaceous adenoma.

(2) Neurofibromatosis (Von Recklinghausen's disease). : (See Al-Garem's Clear Neurology). It is a developmental abnormality involving the neuroectodermal system, and related to tuberous sclerosis, but is rarely associated with subnormality (only 10% of cases). It is characterized by : a) Cutaneous pigmentation (cafe aulait). b) Tumors (mainly subcutaneous neurofibromas).

(3) Craniostenosis (Oxycephaly) : (See Al-Garem's Clear Neurology). It is due to premature closure of the cranial sutures. It is uncommonly associated with subnormality (about 10% of cases). It is characterized by : a) Abnormal shape of the skull (tower skull) with exophthalmos b) Manifestations of increased intracranial tension, and failure of vision may develop later.

(4) Hypertelorism (Fig. 70) : It is due to abnormal development of the portion of the sphenoid bone which arises from cartilage (lesser wing). It is characterized by a) Mental deficiency b) Characteristic facial appearance; the nose is broad and flattened, and the eyes are widely separated.

Fig. 70 : A boy aged one years with hypertelorism showing the characteristic facial appearance.

(5) Naevoid Amentia (Sturge-Weber syndrome) (See Al-Garem's Clear Neurology) It is due to congenital malformation of blood vessels (angiomatous developments), both extra and intracranially. It is characterized by a) Mental deficiency b) Angiomatous developments i - Extracranially : large nevus on the face which is port-wine in colour ii - Intracranially in the corresponding cerebral hemisphere and overlaying meninges (may be calcified), leading to fits, and may be contralateral hemiplegia.

(B) RECESSIVE INHERITANCE :

(1) Mongolism (Down's syndrome) (Fig. 71) : It is so named because of the facial resemblance of the patient to the Mongolian race. Etiologically, it is due to a small single extra-chromosome; normally thy are 46 and here they are 47, the extra one is the result of trisomy of chromosome No. 21. Its incidence is related to maternal age, it occurs in offspring of women over 30 years old. Clinically it is characterized by :

a) Mental subnormality which is usually of the imbecile range, but the patient is of a friendly disposition, easy to manage, and likes play and music.

b) Physical features : the following are characteristic i - The head is small and rounded,

and the face and occiput are flattened ii - The eyes show oblique narrowed palpebral fissures, with marked epicanthic folds. iii - The tongue is somewhat large, with transverse fissuring (scrotal tongue). iv - The hand and foot changes : The hands show a single transverse palmar crease, and the fingers are short, particularly the little one which is curved inwards, and may not extend beyond the first interphalangeal joint. The foot has a great toes which is short and separated from other toes by a wide gap (cleft). Webbing of fingers and toes may occur. If they live till middle age they may develop Alzheimer like changes.

a) b) c) d)

Fig. 71 : a) Mongolism showing the characteristic
a) face b) scrotal tongue c) hand d) foot

(2) Microcephaly (Fig. 72) : It is characterized by a) The subnormality is usually severe, but the patient is usually well-behaved and pleasant to other people and animals. b) The skull shows a characteristic shape (see p. 198).

(3) Laurence-Moon-Biedle syndrome (Fig. 73) : It is characterized by a) Mental retardation b) Obesity of the Frolich's type. c) Hypogenitalism d) Polydactylism e) Pigmentary degeneration of the retina (retinitis pigmentosa) which is progressive. This syndrome may exist in association with hereditary ataxia (spinocerebellar degeneration).

(4) Inborn errors of metabolism associated with Primary Amentia : These disorders are due to absence of a specific enzyme, or to an abnormally constituted one, as a result of absence or abnormality in the gene concerned. The commonest are the following :

a) Phenylketonuria : It is due to absence of a hepatic enzyme called phenylalanine oxidase, by which the liver converts (by oxidation) the ingested amino acid phenylalanine to tyrosine (a precursor of melanine). The process of oxidation is arrested at the stage of phenyl pyruvic acid, which accumulates in the body fluids and appears in the urine. It can be demonstrated in the urine as a blue green ring on adding ferric chloride solution. This abnormal metabolism of phenylalanine results in a progressive cerebral damage, leading to the clinical syndrome characterized by i - Mental retardation. ii - Hyperactivity iii - Epileptic fits iv - Dermatitis. The treatment consists of giving a diet low in phyenylalanine from birth

till the end of 3 years, after which the brain may be capable of withstanding the harmful effects.

b) Maple syrup urine disease : It is so called because of the characteristic smell of the urine, which resembles that of maple syrup. The reaction of urine to the ferric chloride test may be mistaken for that of phenylketonuria, but paper chromatography can differentiate. It manifests itself early in life by signs of progressive cerebral involvement : amentia, paralysis, rigidity; leading to death in few months. No treatment is known.

c) Hartnup disease : It manifests by excretion of a number of abnormal amino acids in the urine, which produces a characteristic pattern on paper chromotography. The characteristic clinical picture is photo sensitivity with development of a rash identical with that in pellagra. In untreated cases the neurological signs of pellagra will occur. Treatment is with large doses of nicotinamide. Children with this disease are mentally subnormal in varying degrees.

Fig. 72 : Microcephaly

d) Hepatolenticular degeneration (Wilson's disease) : (Fig. 74) See Al-Garem's Clear Neurology). It is due to absence of a plasma protein called caeruloplasmin which carries the copper, with the result that this metal is deposited in the tissues, mainly the brain (lenticular nucleus), cornea, and liver. The manifestation are i - Nervous : consisting of extrapyramidal manifestations (tremors or choreoathetosis with rigidity), and mental changes (emotional lability and mental retardation or dementia) ii - Corneal pigmentation (Kayser-Fleischer ring) iii - Liver cirrhosis (usually latent). The treatment consists of giving drugs which increase the excretion of copper deposited in the tissues e.g. dimercaprol (B.A.L.).

Fig. 74 : Wilson's disease.

Fig. 73 : Laurance Moon-Biedle syndrome.

e) Galactosemia : It is due to the absence of an enzyme which metabolizes galactose to glucose hence galactose accumulates in the body in toxic amounts, and appears in the urine in excess. The result is widespread tissue damage, and interference with the growth of

the infant with a high mortality rate. The characteristic manifestations are i - Brain damage leading to mental retardation, convulsions and lethargy. ii - Liver damage leading to hepatomegaly, cirrhosis, jaundice, and splenomegaly with ascitis. iii - Lens damage leading to cataract. The association of severe subnormality with cataract is very suggestive of this disorder. The treatment consists of exclusion of galactose and lactose from the diet, thus milk must not be given.

f) Gargoylism (Lypochondrodystrophy) (Hunter's disease) (Fig. 75) : It is due to a disturbance in metabolism of muco-polysaccharides, with the result that abnormal intracellular polysaccharides accumulate in all the tissues of the body including the brain. The condition usually becomes apparent at the end of the first year, with the following characteristic manifestations : i - Grosteque appearance : the condition derives its name from resembling a gargoyle : the face is coarse and looks heavy; the nose is broad and flat, the eye-brows and lips are thick; and the tongue is large ii - Peculiar type of osseous dystrophy with enlargement of the head, dwarfism and kyphosis. iii - Enlargement of the liver and spleen with prominent abdomen, and umblical hernia. iv - Congenital corneal opacity. v - Mental retardation is usually present. There is no specific treatment and the patient usually dies early. Diagnosis is confirmed by excretion in urine of excess muco-poly-saccharides.

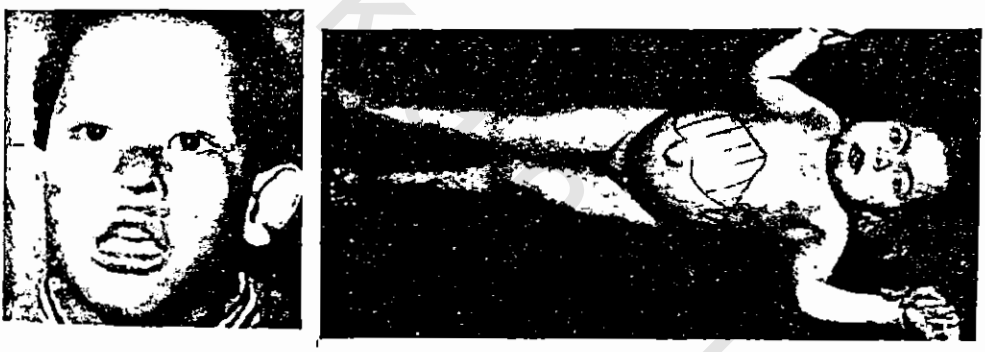


Fig. 75 : Gargoylism a) a boy showing the grosteque appearance b) a girl showing dwarfism and prominent abdomen with umblical hernia.

g) Cerebromacular Degeneration (Amaurotic Family Idiocy) : (See Al-Garem's Clear Neurology). It is due to disturbance of the lipoid metabolism which results in the deposition of lipoid material (gangliosides) within the never cells, leading to their degeneration. There are two forms, infantile and juvenile. The characteristic features are i - Family history is positive ii - Mental retardation iii - Optic atrophy. iv - Paralysis which may be associated with epileptic fits. The disease runs a variable course, which ends fatally. There is no effective treatment.

h) Diffuse Sclerosis (Schilder's disease) : (See Al-Garem's Clear Neurology). It is one of the demyelinating diseases, and the etiology might be a constitutional defect transmitted as a simple recessive one. Pathologically, there is diffuse bilateral demyelination starting in the occipital lobes and extending forwards to the frontal ones. Clinically : i - Occipital lobes affection leads to central blindness. ii - Frontal lobes affection leads to spastic diplegia and fits (precentral area); also mental deterioration (prefrontal area). The disease is always progressive to a fatal end within few months or years. Treatment is only symptomatic.

i) Cretinism (Fig. 76) It is due to deficiency of the thyroid hormone which may result from (1) An inherited recessive abnormality due to some intrathyroid enzyme deficiency, causing a block in the synthesis of thyroid hormone. (2) Iodine deficiency in the diet which is endemic in certain regions, and almost always associated with endemic goiter.

The clinical picture shows retardation of mental and physical development with the following features :

i - mental retardation of any degree, associated with lack of initiation and slowness; the patient is generally good-natured and easily manageable.

ii - The physical appearance is very characteristic. The growth is stunted, with large head, short thick neck, thick lips, large protruding tongue, and prominent abdomen. The skin is dry and the hair is coarse. Dentation is delayed.

Fig. 76 : A boy aged 3 years with cretinism

The diagnosis is confirmed by laboratory tests. The treatment is by thyroxin which must be started very early to avoid severe and permanent subnormality.

(5) Simple undifferentiated amentia : This is a common type with no specific physical features to distinguish it from individuals with normal intelligence. Such patient usually marries an individual with the same degree of intelligence (i.e. similar birds fly together). Consequently the chance of amentia in the off spring is not rare.

II – Secondary Amentia :

(1) *German Measles (Rubella);* Such infection, if it affects the pregnant mother during the first 3 months, usually causes profound damage to the foetus leading to a) Severe subnormality b) Microcephaly c) Blindness due to cataract d) Nerve deafness. The incidence of this serious complication is high, and so termination of pregnancy must always be advised.

(2) *Congenital Syphilis :* (See Al-Garem's Clear Neurology). It is divided into two categories.

a) Meningo-vascular form which is mostly cerebral characterized by i - Mental subnormality ii - Moderate infantilism. iii - Slight hydrocephalus iv - Cranial nerve affection, particularly optic atrophy. v - Motor system affection in the form of fits and paralysis e.g. hemiplegia, or diplegia.

b) Parenchymatous form e.g. juvenile G.P.I. which occurs at the age of 12 – 17 years, producing progressive mental deterioration and the signs seen in the acquired G.P.I.

The investigations and treatment of congenital syphilis are the same as the acquired form, but the results are often disappointing.

(3) *Kernicterus (Icterus Gravis Neonatorum) :* (See Al-Garem's Clear Neurology). It is produced by a haemolytic disease of the new born, resulting from Rheusus factor incompatibility (the mother being Rh-ve and the foetus Rh + ve). Pathologically the haemolysis results into bile staining of all the tissues, including the brain, particularly at the

basal ganglia (hence the name kernicterus which means staining of the nuclei). The condition appears 1–2 days after birth as severe neonatal jaundice. Most of the infants die, those who survive will show a) Mental subnormality b) Extrapyramidal manifestations : chorea or choreo-athetosis, and rigidity.

(4) *Toxoplasmosis :* It is a protozoal infection. The source is the cat and similar animals, which have the parasite in their faeces, and man gets infected by oral contamination. The disease may be congenital or acquired. The organism is an intracellular parasite causing lesions in the nervous system, eyes, liver, spleen and other organs. Pathologically the brain shows areas of softening, and calcifications is the rule. Clinically the patient will show : a) Encephalomyelitis with mental subnormality, paralysis, spasticity, hydrocephalus, convulsions and signs of meningeal irritation. b) Bilateral chorio-retinitis. c) Enlargement of the liver and spleen. d) Cerebral calcifications. Diagnosis is confirmed by demonstration of the parasite in tissues or body fluids, or by complement fixation tests on the serum. Treatment by drugs consists of giving for 3 weeks the following daily doses : i - Folic acid suppressors e.g. pyrimethamine 50 mg. ii - Folic acid 5 mg. iii - Triple sulpha 6 gm.

CHILD PSYCHIATRY

Introduction

The field of child psychiatry was given much attention recently, due to the belief that a) The origin of the mental disorders of adults is to be found in their childhood experiences b) The treatment of the mental disorders of children may prevent the mental disorders of adult life.

Psychology of the child : It differs from that of the adult in the following:

(1) *Influence of environment (personal contacts) :* The environment at home as mentioned on p.15 (parents and siblings) and at school (teachers and pupils) has a great influence on the child. Pathological manifestations usually result from some frustrations of the child's desires, and usually disappear after adjustment of the environment. For this reason it is said that the problems of the child should be discussed with his contacts, before he is contacted.

(2) *Plasticity of the mental processes (attitude and behaviour) :* For this reason the adjustment of the child is relatively easy, if compared with the adult in whom there is a long accumulation of attitudes and habits. The importance of this plasticity lies in that a) It makes the treatment of psychiatric children easier. b) It prevents development of psychiatric disorders in later life.

(3) *Prominence of egoistic tendencies :* The thinking of the child has as strong egoistic tendencies e.g. he believes that the moon follows him wherever he goes. The egoism leads to self assertion and craving for prominence and jealousy of others e.g. the birth of a younger brother or sister. A conflict may arise between the egoism and the circumstances of the environment, and it may lead to a mental disorder.

(4) *Difficulties found at school :* **a)** Intellectual difficulties, as in case of mental dullers, will make the child not capable to cope with his school work, uninterested in it, or even rebellious (e.g. escapes from school). b) Affective difficulties may also develop, since the child has to adapt to his school fellows and teachers, and must expect the same kind of attitude as that of his family. Disappointment in this respect may produce symptoms of unrest e.g. following a bad name given to the child by his teacher (e.g. the tall and stupid).

Method of Investigation

This differs from the method used in adults, since the child is not easily accessible. The general principle is to make the lines of inquiry as broad as possible. Informations should be obtained from the following sources : **a)** the parents b) a social worker visiting both home and school c) the child himself. The following items are essential :

I – History of the child : This is taken starting from the time of birth, with special reference to land marks (mile stones) in physical and mental developments. Information about play is necessary; whether the child is allowed to play with other children, whether he prefers to play alone, and the type of play he likes.

II – Family history : Collect informations about family relationships: (1) The place of the child in the family e.g. it was found that the only child, the oldest and the youngest, the step child and that of broken homes are more prone to psychiatric disorders. (2) The actual sleeping arrangements, whether alone or with siblings, or with parents. (3) Information about

the parents : have they good relations ? was the child wanted ? The grand parents are also of importance, since they influence the upbringing of the children e.g. may spoil them. (4) The economic state of the family has an influence e.g. the standard of living and the number of rooms of the house.

III – Examination of the child : The mind of the child is explored as follows :

(A) Verbal method : by talking to the child, and this should be tried when the age is over 6 years. Indirect method may be used as by asking the child to talk about his dreams and day fantasies.

(B) Non-verbal method : by watching the child at play e.g. games with other children, solitary games as building bricks, toy using soldiers, drawing and painting. All these give side lights on the child's problems, as well as providing him with an outlet. Thus the play may have a therapeutic effect, in addition to the diagnostic one, for his emotional troubles. For example, if the child is given dolls representing father, mother and siblings, and he dislikes his mother because she prefers his younger brother, he may beat the dolls representing the mother and the younger brother.

Classification

The main child psychiatric disorders are the following :

I – Behaviour disorders (A) Sleep disorders (B) Excretory disorders (C) Speech disorders (D) Psychomotor disorders (E) Social behaviour disorders (Delinquency).

II – Neuroses III – Psychoses IV – Dementia.

I – BEHAVIOUR DISORDERS

(A) Sleep disorders :

(1) *Motor anomalies in sleep :* e.g. rhythmic movements before going to sleep as head nodding or limb jerking, talking and screaming without waking up, and grinding the teeth. In most cases they have no significance, but they may be an indication for emotional difficulties.

(2) *Sleep-walking (Somnambulism) :* It is quite common and happens once or twice in most active children. During the episode the child avoids objects, and is rarely in danger, but accidents in risky situations may occur. If sleep-walking is frequent and persistent, it may be a) An expression of a conflict in the child's life, and it is equivalent to a hysterical symptom. In such cases the goal of the sleep-walking may suggest the psychological interpretation, as in the child, very much attached to his mother, who walked frequently in his sleep to her bed room. Such cases need psychotherapy safety measures and benzodiazepines (valium 5 mg) at bed time. b) An indication of hypoglycaemia, and in such case it responds to the administration of glucose at bed time (e.g. a glass of highly sugared milk).

(3) *Nights :errors :* They should be differentiated from nightmares; both

are forms of reaction to fear during sleep i.e. in a dream.

a) Nightmares occur both in children and adults; during it the individual wakes up from a dream in fear, remembering the dream, and calms down quickly from his fear. They are harmless and can be stopped after dealing with the responsible precipitating factor, such as reading exciting stories in the evening.

b) Night terrors occur only in children; during it the child sits up in bed with fright, screaming for help, and clutching those around him; he can not be awakened or calmed. After few minutes he falls into a deep sleep, and in the morning he has complete amnesia for the attacks, as well as for the dream content. In the majority of cases the symptom is a reaction to a conflict; occasionally it is due to hypoglycaemia. Treatment depends upon the cause. Benzodiazepine at bed time will help.

(B) Excretory Disorders :

(1) *Nocturnal Enuresis* : Most children attain control over the sphincter of the bladder, both by day and night, by the age of 3 years. Bed wetting during sleep after 4 years is called nocturnal enuresis. It is the commonest habit disorder in children (mainly boys) and causes troubles at home and boarding schools.

Primary and secondary enuresis : The primary (persistent) constitutes 80% of cases, is present since birth, and is due to a developmental delay in the maturation of the central nervous system. The secondary (transient or neurotic) forms 20% of cases, appears after the person has stopped wetting, and is due to psychological factors. The organic cases might be of the primary or secondary type.

Etiology · we classify cases into three groups :

a) Developmental factors : i - Delayed maturation of the nervous structures subserving the bladder control which may have a hereditary component. It is not rare to find high familial incidence, with other members in the family, in the present and previous generations with the same disorder. It is present in children with neurotic traits (e.g. night terrors, somnambulism and temper tantrums); they also show urgency and frequency of micturition during the day (probably due to small bladder capacity); and abnormally deep sleep may be a factor among them. ii - Lack of habit training for acquiring bladder control during the sensitive period ($1\frac{1}{2}$ – 3 years) e.g. poor home conditions without a private toilet is a complementary factor.

The enuresis may occur nearly every night, or with intervals of weeks. Commonly it ceases spontaneously at various ages, and few individuals continue to suffer from it until puberty (12 – 16 years).

b) Psychogenic factors : There is no definite proof that the basic cause of enuresis is a psychological one. However, it might be explained by i - Persistence of infantile traits, or regression to infancy, associated with too much maternal attachment; actually some cases start at the time of birth of a new sibling ii - Aggression directed against the parents (mainly mother), or resentment against cleanliness, thus the child punishes them by wetting the bed.

c) Organic factors : i - Neurogenic e.g. spina bifida (see Al- Garem's Clear Neurology) ii - Local irritative lesions as stone bladder and constriction of urethra. iii - General causes, as polyuria (diabetes), debilitating diseases, and parasites. (perianal pinworm infestation).

We did not include among causes mental subnormality; in the severe type, which is not trainable, enuresis is common.

Treatment : The organic group has to receive the specific treatment. The treatment to be described now is for the remaining two groups (1) Psychotherapy is helpful, and free expression of the child's difficulties is essential. Parents are persuaded to be friendly with the child, not to nag or punish him; on the contrary a small reward for each dry night may be helpful. A diary is used and each dry night is marked in it, and this encourages the child to stop the habit. (2) Fluids should be withheld after the evening meal, and the patient should empty his bladder before going to bed, and awakened for the same purpose two hours later, when the parents retire. (3) Attempt to drink excessive amounts of fluids and to prolong intervals between voiding during the day, as an exercise to the bladder. (4) Drugs : a) anticholinergics e.g. antrenyl; b) antidepressants e.g. imipramine (tofranil), its mechanism of action is probably a combination of an anticholinergic and stimulant effects. the latter making the sleep less deep. c) Antidiuretic hormone e.g. desmapressin nasal spray at bed time. (5) Buzzer and pad device which is an apparatus with a bell that rings when the urine falls on the pad. Conditioning will awake the child when the bladder is full and before the incontinence.

(2) *Faecal Incontinence (Encopresis) :* It is very rare. It is due to deep unhappiness, and signifies hostility and aggression towards the mother. Treatment consists of psychotherapy and giving constipating mixtures. An enema, twice weekly, of 100 c.c. 5% calcium chloride is helpful.

(C) Speech Disorders :

There are many types, but the most important is stammering.

Stammering (Stuttering) : It is a disorder of talking in which phonation is

normal, but articulation is disturbed by muscle spasms causing either one or both of the following a) Repetition of syllable i.e. stammering (clonic spasm). b) Abrupt pauses i.e. stuttering (tonic spasm). b) Abrupt pauses i.e. stuttering (tonic spasm).

Etiology : It is not an organic one. Two types are seen according to the age of onset.

(A) In children (physiological) : It is more common in boys and it occurs between the ages of 2–10 years, mainly during acquisition of speech, or on going to school and mixing with new acquaintances (situations inducing shyness). It is mainly due to physiological instability in the neuromuscular speech apparatus. The following factors might be of importance.

i - Hereditary factor : The disorder may affect several members of the same family, probably due to an inherited weakness of the speech mechanism. Also other disorders of talking e.g. lisping may be present in the same family.

ii - Left-handedness : It is not rare in the stammerer or in his family. The disorder might result from the incomplete dominance of the right hemisphere, and from the transient competition between the two hemispheres. It may be precipitated in a left-handed child who is forced to use his right hand. In such case, it is advisable to allow the child to use his left hand.

iii - Psychological factors : The disorder might be precipitated or increased by emotional and intellectual maladjustment e.g. the stress of trying to talk, or that of learning to read and write.

The individual eager to say the right thing, but fearful of the wrong, sets up inhibitions which interfere with the normal function of the speech organs. Thus the stammering is a manifestation of tension resulting from a conflict.

(B) In adults (psychological) : Here the stammering is entirely psychogenic, and appears as a hysterical manifestation. It can be easily imitated, and it is usually of short duration.

Treatment (the physiological type starting in childhood) : This type usually disappears spontaneously at adulthood, but rarely it may persist. The treatment should start as early as possible and consists of :

a) Psychotherapy : removal of any psychological factors which might reinforce the stammering. Here the parent's worry is an important factor.

b) Drugs : i - Benzodiazepines which have anxiolytic and muscle relaxant effects. ii - Haloperidol may help.

c) Re-education : i - The patient, being alone in a room, talks and reads in a loud voice, daily for one hour. ii - A speech therapist teaches the patient how to relax and use his speech apparatus properly infront of audience. iii - Shadowing technique : the stammerer reads from a book while recording on a tape. He is then asked to repeat his reading, word by word, simultaneously with his recording. In this way his tension (anxiety) is removed by deviating his attention to his recorded stammering, rather than to his own live stammering. Gradually the patient regains confidence and talks with less anxiety, and consequently with less stammering.

(D) Psychomotor Disorders :

(1) *Hyperkinetic (attention deficit) disorder:* The hyperactive child shows: a) A general motor unrest, chaotic activity, exploration of the environment, and tendency to put objects into the mouth. b) Short attention span and marked distractability. Such child is usually aggressive to his siblings, and is unaffected by punishment.

Etiology : Two groups are seen :

I – Idiopathic or constitutional : This group forms about 50% of cases. It is more common in boys, starts at about the age of 2 – 4 years, reaches its height by the 6th. year, and then diminished. E.E.G. abnormalities in the temporal lobe region are not rare.

II – Symptomatic :

(A) Mental disorder : a) Organic brain damage : cerebral palsy e.g. after head injury; epileptic disorder (mainly with temporal lobe epilepsy). b) Functional : i - Neurosis : the symptom is used either as a defence against environmental stress, or as an outlet for an emotional conflict. ii - Psychosis e.g. childhood schizophrenia.

(B) Mental subnormality

Treatment : The following drugs may be tried a) Stimulants such as amphetamine : curiously enough the hyperactive children who need sedation, may respond to stimulants, and they can usually tolerate large doses of them, caffeine is used for the same idea. b) Antidepressants e.g. imipramine. c) Major tranquilizers e.g. haloperidol. d) Antiepileptics e.g. carbamazepine if E.E.G. shows temporal lobe abnormalities.

(2) *Habit disorders :* They include nail-biting, thumb-sucking, head-rolling, and masturbation. They are either a) primarily autoerotic in basis, or b) represent a regression to infantile sources of satisfaction, infront of an environmental frustration. The treatment consists of analyzing the situation in each case, and making appropriate readjustment.

(3) *Tic (habit spasm) :* see Al-Garem's Clear Neurology.

Syndrome of tics and barking (Tourette disorder) : It is rare, starting in childhood and characterized by (1) persistent multiple tics (2) compulsive vocal expression (vocal tics) such as barking and grunting (3) echolalia and coprolalia (uttering obscenities) occur in few cases. Etiology is little known but minor neurological and E.E.G. changes suggest that it is an organic disorder involving neurotransmission in basal ganglia. Treatment by haloperidol gives a response in most cases, but the outcome is generally poor.

(E) Social behaviour disorders (Delinquency) :

These include such actions as lying, stealing, truancy from school, wandering about, refusal to eat or speak, cruelty and aggressive behaviour. All these disorders may be within normal limits e.g. nearly every one of us has stolen something when he was young. They are considered pathological when the action is severe and persistent. In such cases the disorderly behaviour constitutes delinquency and brings the child to the hands of the police and court. For further details of the subject see sociopathic personality (p. 161).

II – NEUROSES

(1) Anxiety state : It is usually the result of imitation of an atmosphere of anxiety in the home. The anxious mother is apt to produce an anxious child and later on an anxious adult. The causes, symptoms and treatment are the same as in the adult type (p.32) Removal of the child from the home is usually very effective for treatment.

(2) Depressive state : It is usually the result of the death of a family member, or parental disharmony. The child appears miserable, eats and sleeps badly, and unable to concentrate at school. Treatment is psychotherapy and antidepressants.

(3) Hysteria : The symptoms are usually determined by the influence of suggestion, coupled with desire for sympathy. The causes, symptoms and treatment are the same as in the adult type (p. 93) although gross symptoms, as hemiplegia, are less common than vague complaints such as headache and dizziness.

(4) Obsessional state : It is rare and similar to the adult type (p. 108). It may take the form of repeated questioning about something, or repeated touching of objects. Some delinquent acts which are wrongly called mania (as setting fire or pyromania) are produced by an obsessional mechanism.

III – PSYCHOSES

Although rare, forming about 1% of the admissions to mental hospitals, they are important since they cause great suffering to the child and his family.

(1) Schizophrenia :

It is a pathological reaction which is given different names according to the age in which it develops i - infantile schizophrenia (autism) during the 1st. 3 years. ii - Childhood schizophrenia (autistic type) between 3–14 years. iii - Adult schizophrenia during adolescence and adulthood.

Autism : It is a specific syndrome, manifested after a period of normal early development and remains throughout life. Etiologically this brain disorder is the result of genetic influences, but organic brain disorder is suggested since some patients have soft neurological signs and epilepsy. It occurs in all parts of the world and in all classes, and much more common in boys.

The following are the main manifestations :

(A) Affect : anxiety which is acute, excessive and illogical, usually precipitated by change in environment. On the other hand, lack of fear in face of real danger occurs.

(B) Intellect : a) Mental retardation (I.Q. is below 70 in 70% of cases). On the other hand there may be islets of normal or exceptional intellectual function or skill (e.g. solving a problem). b) delayed language development which is out of keeping with the intellectual level e.g. utterance with no meaning.

(C) Behaviour : a) Impaired social development which is out of keeping with the intellectual level (e.g. inability to make emotional contact as mixing and playing with other children and abnormal behaviour towards them). b) Insistence of sameness or resistance to change, as shown by stereotyped play pattern (monotony). c) Unawareness of the self, with abnormal behaviour e.g. exploration of parts of his body or their damage.

Treatment : Haloperidol improves about 40% of cases, but the disease is uncurable.

Childhood schizophrenia : The clinical picture resembles that of adult schizophrenia (p.138), the resemblance gets nearer the older the child grows, but differentiation into adult subgroups (simple, hebephrenic, etc.) is very difficult.

The following are the main manifestations. (A) Affect shows blunting of emotions with apathy. (B) Intellect a) The scholastic ability begins to deteriorate because of lack of attention and concentration. b) Speech also shows deterioration due to formal disorder (expression) of thought. c) Abnormal thought contents and perception soon develop in the form of delusions and hallucinations (C) Behaviour a) Detachment or withdrawal into the self (autism) is an early manifestation, so the child does not mix or play with other children : a pathognomonic feature is avoiding to look in the eyes of other (gaze avoidance). b) Motor activity may show i - retardation going to immobility with catatonic features ii - hyperactivity (hyperkinesia).

(2) Manic-depressive Psychosis : It is rarer than schizophrenia, and rare before adolescence. Both manic (p.118) and depressive (p.122) states occur, but depression is commoner. Suicide may result, although it is very rare under the age of 15 years.

IV – DEMENTIA

Mental deterioration in childhood usually leads to mental deficiency. It is included under dementia, although, strictly speaking, the latter term is reserved for such deterioration starting after complete mental maturity has set in (i.e. after the age of 18 years).

The main causes of dementia in childhood are the following conditions, all except the 5th. are described in Al-Garem's Clear Neurology.

(1) Lipidoses (mainly cerebromacular degeneration).

(2) Demyelinating diseases (mainly diffuse sclerosis or Schilder's disease).

(3) Leucodystrophy.

(4) Slow virus infections (mainly subacute sclerosing panencephalitis).

(5) Congenital neurosyphilis (mainly GPI).

(6) Schizophrenia.

PSYCHIATRIC DISORDERS IN OLD AGE

Incidence

Recently there is an increase in the incidence of psychiatric disorders in old age, simply due to the fact that more people live to reach the senile period. The prolongation of the life span is due to the great advance in medicine, both the preventive and the curative one.

Factors responsible for senile changes

With the advance in years the individual becomes more brittle and susceptible to physical and mental incapacity, in other words the human machine slows down and greatly looses its resistance and elasticity. The factors responsible for such senile changes are multiple.

I – Hereditary or constitutional factor (diathesis) : this explains the difference in the age of onset of senile changes in different individuals. There are few old individuals that remain intact to the end of their days, while most of them show the senile changes long before their appointed day (i.e. death).

II – Aquired factors :

(1) Psychosocial factors : Different environmental stresses similar to those described under involutional depression (p. 132) play a role. The old individual becomes isolated due to death of relatives and his attention is directed towards himself and his bodily functions (e.g. digestion and defaecation), and consequently leads to the development of hypochondriacal trends.

(2) Physical factors : such as disorders of circulation, nutrition and endocrine gland (particularly gonads). The development of senile deafness and amblyopia increases the isolation of the patient and leads to suspiciousness with paranoid trends.

Early signs of senility

Senility starts very insidiously and its exact onset can not be exactly dated. However there are two definite very early signs (mile stones) that denote its onset (graying of hair is not one of them) : (1) Weakness of accommodation so that eyeglasses become essential. (2) Weakness of gonadal function as denoted by menopause in the female and decrease of sexual power in the male.

Treatment :

(1) Drugs : a) Should be used in small doses and kept at a minimum for old people because side effects are marked. b) A single-drug therapy in once daily dosage is desirable because forgetfulness often leads to poor compliance.

(2) ECT : In depression it is very useful if the patient is fit for anaesthetic, and is often better tolerated than antidepressants.

Classification of psychiatric senile disorders

The term senile disorders is used when disorders start after the age of 65 years. They are classified as follows :

I – Primary disorders :

(A) Neuroses : they are rare in old age, their appearance for the first time at the age denotes an underlying (1) personality disorder as a predisposing factor (2) organic pathology (e.g. cerebral arteriosclerosis) precipitating its development. Neurotic symptoms are usually anxiety with depression; somatoform symptoms are often prominent. Less common are hysteria, obsessional neurosis and phobic anxiety neurosis.

(B) Psychoses :

(1) Affective psychoses :

a) Depression : Late onset major depression (involutional depression p.) gives a similar clinical picture. Senile depression is the most common psychiatric illness in old people. It may be mistaken for dementia. In *depressive pseudo-dementia* a) usually a history of mood disturbance precedes the other symptoms b) on examination the patient is unwilling to answer questions, and this can be distinguished from the failure of memory of the demented patient. Sometimes dementia and depression coexist. If there is doubt a trial of an antidepressant will help.

Senile depression usually recovers in a short time, but recurrences are common.

b) Mania : (see p.118) In the elderly i - transient depressive symptoms occur during most manic illnesses ii - the condition is usually recurrent.

(2) Late paraphrenia (see p.156)

(3) Schizo-affective disorder (see p. 147) : The prognosis is less favourable than for depressive disorder.

II – Secondary or organic disorders :

(A) *Acute organic reaction type :* senile confusion and delirium are not rare. For etiology and clinical picture see p. 179. The important etiological factors in old people are infections (mainly respiratory), drug intoxications such as sedatives (the old is much more susceptible than the young), metabolic disorders, (e.g. kidney failure), exhaustion (e.g. post operative after cataract and prostate), hypoxia (due to cardiac and pulmonary disorders), and nutritional deficiency (particularly vitamin B - mainly nicotinic acid - and vitamin C).

(B) *Chronic organic reaction type :*

(1) Intrinsic group : senile psychosis which advances to senile dementia (see p.217).

(2) Extrinsic group : any of the causes mentioned on p. 182 can be responsible, the commonest being cerebral arteriosclerosis leading to psychosis and dementia. (see Al-Garem's Clear Neurology).

Senile Psychosis and Dementia :

Etiology : It is due to intrinsic degenerative changes of the central nervous system (including the higher cerebral neurons which subserve the mental functions). There is a primary atrophy of these neurons, not due any vascular changes. This hereditary or constitutional factor (aging factor) is the main etiological one, and it may be helped by acquired factors which were mentioned on p. 215. The condition usually starts after the age of 65 years. There may be a familial susceptibility.

Pathology : Similar to Alzheimer disease (p. 193).

Clinical picture (Fig. 77) : The onset is an insidious one and the course is slowly and steadily progressive from bad to worse, going from a disorder to a dementia.

I – Mental changes : They are described on p.190; particular features are:

(1) Intellect : The patient becomes narrow in his outlook and rigid in his views. Disturbance of memory is marked, particularly for recent events. The patient forgets where he puts his thing and often complains that everything is stolen from him, thus suspiciousness and paranoid trends towards his family occur. Hoarding is common, consequently the pockets are filled with articles of little or no value, and an unnecessary volume of clothes is worn. Disorientation is common. Attention and concentration are impaired, so that the same question has to be repeated before obtaining an answer from the patient.

Fig. 77 : Senile dementia

(2) Affect : The patient becomes egoistic (self-centred), and his emotional life becomes shallow e.g. death of a near relative makes little impression. Emotional instability is common. Depressive, manic or paranoid states may occur depending upon the premorbid personality.

(3) Behaviour : It becomes abnormal. Loss of control accounts for sexual offences, such as practices with young girls. Restlessness is a troublesome symptom especially at night, when the patient tries to leave the house and easily gets lost (due to disorientation for place). Also he is liable to develop

acute delirious states after infections, fractures, or spontaneously.

II – Physical changes : Neurological examination often reveals phenomena attributable to aging, such as small sluggish pupils, diminished deep reflexes with absent ankles, absent abdominal reflexes, and impaired vibration sense in the lower extremities. There may also be senile tremors, rigidity, bradykinesis with short stepped gait, paraplegia and epileptic fits. Focal symptoms may be present, such as aphasia, apraxia and agnosia.

Diagnosis : Senile dementia is differentiated from arteriosclerotic (muti-infarction) dementia by the course which is (1) steadily progressive with no fluctuations (stepwise progression) (2) absence of strokes (e.g. hemiplegia).

Prognosis : that of Alzheimer disease (p. 193).

Treatment . see treatment of dementia (p. 192).

MISCELLANEOUS DISORDERS

The following will be discussed :

(1) Psychiatric disorders related to child-bearing.

(2) Somatoform disorders and psychosomatic (Psychophysiological) disorders.

(3) Hypochondriasis.

(4) Unreality states (5) Excitement (6) Stupor (7) Suicide.

Psychiatric Disorders related to Child-bearing (Pregnancy, labour, puerperium and lactation)

ETIOLOGY : These psychiatric disorders are not specific syndromes i.e. there is no psychiatric reaction peculiar to child-bearing. The etiology, in general is the same as that of the primary mental disorders (p. 6); the strain of childbearing (with its psychological and physical factors) may be considered as an added burden to the susceptible woman. Thus the following factors are important :

I – Hereditary (constitutional) factor.

II – Acquired (predisposing and precipitating) factors.

(A) Psychological factors (environmental stress) : Primiparae are most commonly affected and some emotional stress may be present e.g. a) Unhappy married life, since the chance of separation will be less with children. b) Fear from delivery, or the responsibility of the motherhood. c) The attitude of the husband e.g. he does not want children, or wants a boy, or a girl d) Illegitimate pregnancy, or when the husband dies or divorces the wife before delivery.

(B) Physical factors : a) Endocrine and metabolic changes b) Malnutrition is an important factor c) Physical exhaustion and loss of blood d) Puerperal sepsis, alone, is relatively unimportant.

N.B. : The duration of puerperium is 6 weeks physiologically (when the body goes back to its previous state), but it is 12 weeks psychologically (when the mind goes back to its previous state).

CLINICAL PICTURE : There is no characteristic reaction type, and any one may occur depending upon the premorbid personality, most of the cases show a mixed reaction.

(1) The majority (about 70%) show one of the following : a) Mixed schizo-affective reaction (schizophrenia and depression). b) Manic-depressive reaction (depression is commoner than mania) c) Schizophrenic reaction.

(2) The minority (about 30%) show one of the following : a) Acute organic reaction in the form of delirium b) Psychoneurotic reaction c) Sociopathic reaction.

Maternity blues : About 50% of mothers experience transient depression about 4 days following delivery. These postnatal depressions are so common as to be considered normal.

PROGNOSIS : Short term prognosis is good, but there is 20% chance of recurrence after subsequent pregnancy, and a 50% chance of later recurrence not related to pregnancy.

TREATMENT : It follows the ordinary lines according to the type of reaction. If indicated, ECT is often used in preference to drugs, since psychotropic drugs may have a teratogenic effect on foetus, and enter the breast milk. If the mother is lactating she must stop and the infant has to be bottle-fed.

Prophylactic treatment : Some women are liable to get recurrent psychosis related to child-bearing, which will eventually lead to mental deterioration. Under such circumstances, termination of pregnancy and using contraceptive measures for 5 years, or in severe cases sterilization should be considered.

Indication for termination of pregnancy : In general, abortion is permissible if there is (1) danger to life, or (2) great danger of a lasting severe damage to the health of the pregnant women.

In psychiatry it must be shown that pregnancy will induce a) a psychiatric disorder, or b) an already existing disorder will be made permanently worse.

SOMATOFORM DISORDERS AND

Psychosomatic (psychophysiological) Disorders

The essential features are physical symptoms suggesting physical disorder, while actually the symptoms are linked to psychological factors.

ETIOLOGY : The following points are important :

(1) It is well known that the emotions (e.g. emotional tension, anxiety, depression, frustration, anger, insecurity, hostility, guilt feeling, etc.) influence the physiological activity of the body. The reason is that the hypothalamus, which is center for emotions, controls a) the autonomic nervous system (sympathetic and parasympathetic) b) the endocrine system (hormonal-secretions). With emotional disturbance there will be disturbance (quantitative and qualitative) of the above two systems., and this may lead to dysfunction of certain viscera or internal organs (i.e. organ neurosis).

(2) The long continued and exaggerated physiological expression of the

emotions may eventually lead to an irreversible structural changes in the organs through which they are expressed. These organic changes are probably secondary to vascular disturbances (e.g. vasospasm), smooth muscle dysfunction (muscular spasm) and secretory disturbances (hyper or hypo) of the glands.

The reason why emotions may find different organic expressions in different patient were discussed (p.86).

(3) Psychosomatic disorders, in general, are getting more common; they are commoner in urban than in rural areas, and the incidence is greater in men.

Most of the psychosomatic disorders show a familial incidence; it seems that members of such families have inherited an abnormally labile autonomic nervous system which reacts in an exaggerated way to emotional stimuli. Also most of the sufferers have a characteristic premorbid personality of the obsessional type (p.29).

CLASSIFICATION : Three groups are seen.

I – Somatoform disorders : Those who suffer from various physical symptoms e.g. palpitation, headache, dyspepsia, etc., in the absence of an organic bodily disease responsible for them. This is the group in which the patients present themselves in a somatic guise, denying any mental complaints.

Somatization is viewed as a defence against awareness of emotional distress. It shows (1) strongest association with anxiety and depression (2) intermediate association with psychotic disorder (schizophrenia and paranoid psychosis) (3) weak association with personality disorders.

II – Psychosomatic disorders : Those who have organic bodily diseases, but the original causative factors are believed to be of a psychic or emotional nature. The following are examples of such diseases :

(1) *Skin :* pruritis, urticaria, neuro-dermatitis, hyperhydrosis and psoriasis.

The skin is considered as an organ of emotional expression (the mirror of emotional states). This is not strange, since both nervous system and skin are ectodermal in their embryological origin.

(2) *Endocrine glands :* diabetes mellitus, hyperthyroidism, obesity and primary amenorrhea.

(3) *Gastro-intestinal tract :* peptic ulcer, ulcerative colitis.

(4) *Cardio-vascular system :* essential hypertension, coronary thrombosis.

(5) *Musculo-skeletal system ;* rheumatoid arthritis.

(7) *Nervous system :* migraine.

III – Somatopsychic disorders : Those who have organic bodily diseases, but their complaints are more than can be explained by the organic diseases. These extra complaints are psychogenic in origin and are due to the development of a secondary anxiety, depression or hysterical reaction on top of the organic disease. An example of this group, which is better called somatopsychic, is the patient who has Bilharzial cystitis and complaints, not only of dysuria, but also of cephalgia, insomnia, palpitation, etc.

Hypochondriasis

For definition see p.23. Hypochondriasis takes the form of persistent, vague physical symptoms, involving a part or the whole of the body, without any demonstrable organic pathology to account for.

The term was derived from the belief that the state was caused by some dysfunction in the hypochondrium, especially the spleen. The most common sites for symptoms are the abdominal viscera, the chest, and the head and neck, but they may be related to any part of the body. Also they may consist of a generalized bodily sense of fatigue or malaise.

ETIOLOGY : The common causes are :

I – Symptomatic :

(A) Psychogenic disorders : (1) Neuroses : a) Chronic anxiety state b) Hysteria (associated with belle indifference). (2) Psychoses : a) Depressive state i - involutional depression ii - endogenous depression b) Schizophrenia (the delusions are of the most grosteque type).

(B) Organic disorders : arteriosclerotic and senile psychoses and dementia.

II – Idiopathic (Hypochondriacal syndrome or neurosis) : It is a separate clinical entity that occurs at any age, but more commonly in elderly men, whose interest is withdrawn from the outer world and is concentrated on their bodily functions; thus their whole life centers round their supposed organic diseases. The syndrome is a chronic one, without any deterioration of the mind, and it has no effective treatment.

Mechanism : The hypochondriacal complaint often arises from the heightened awareness of : a) Normal body function e.g. heart beats or peristalsis movement producing fear of heart or abdominal disease. b) Ordinary body sensations (as mild pain or discomfort) e.g. dyspepsia will lead to cancerous stomach and constipation to obstructed bowel. c) Mild physical illness (e.g. enteritis or colitus) provides the basis for complaint in about $^1/_3$ rd. of cases.

CLINICAL PICTURE : Idiopathic hypochondriacal syndrome shows the following characteristic features :

(1) The fear and preoccupation with illness, though fixed and refractory to assurance, usually do not attain the level of delusional conviction and mental examination reveals no evidence of psychiatric disturbance.

(2) The symptoms are : a) vague and bizarre on description b) diffuse involving many different areas of the body.

(3) The behaviour of the patient is characterized by : a) Presents his complaint in detail with pressure of talk, frequently showing the doctor the part affected. b) He is characteristically worried, anxious and concerned about his symptom. c) He often develops a pattern of visiting doctors and clinic, very frequently. d) Such behaviour makes it difficult for the doctors to care for him.

(4) Premorbid personality is of the obsessional type (p.29) in many patterns. In it there is much preoccupation with health, diet and bowels.

DIAGNOSIS : Hypochonodriasis differ from *somatoform (psychosomatic)* disorders (1) In somatoform disorder, the emphasis is on the symptoms and their individual effects. (2) In hypochondriasis the attention is directed more to the presence of an underlying organic, progressive, serious disease and its disabling consequences.

TREATMENT : It depends upon the underlying cause. In the idiopathic syndrome, psychosurgery may diminish the associated tension and agitation.

Unreality States

In these states the individual suffers from ideas of unreality (p. 23) which are of two types, depersonalization and derealization. The affected individual may suffer from both types of change, or only from one, but derealization is very rare without depersonalization. These abnormal feelings are usually not delusional, the patient's insight is intact, recognizing the abnormality of his feeling, but inspite of that he experiences severe distress. The unreality states may be transient (and may be recurrent), or permanent.

Etiology : The common causes are :

I – Symptomatic :

(A) Psychogenic disorders : (1) Neuroses : the frequency of incidence is as follows a) anxiety state b) obsessional state c) hysteria. (2) Psychoses a) depressive states b) schizophrenia (here the feeling is a delusional one since the patient's insight is lacking).

(B) Organic disorders : (1) Acute reaction type : intoxications, as in hashish (2) Chronic reaction type, as in temporal lobe epilepsy. With parietal

lobe lesion on the non-dominant side, contralateral hemipersonalization occurs (see Al-Garem's Clear Neurology).

II – Idiopathic :

(1) Transient state : Healthy adults and children may experience such distressing sensation when tired. It seldom lasts more than few minutes.

(2) Permanent state (depersonalization syndrome) : This is a rare separate clinical entity that occurs more in women.

Treatment : This depends upon the cause. The idiopathic syndrome is very difficult to treat. A trial of an anxiolytic drug may be useful, but this must be balanced against the risk of dependency.

Excitement

Excitement is a general psychomotor overactivity i.e. excessive motor and psychic activity, leading to behaviour disorder. It is the commonest psychiatric emergency that any doctor, particularly the general practitioner, faces.

ETIOLOGY : Excitement occurs in many mental disorders, the following are the common ones.

I – Psychological disorders (primary mental disorder) :

(A) Psycnoses :

(1) Schizophrenia : Excitement may occur in any type, particularly the catatonic one (catatonic excitement). The manifestation are described under behaviour (motor activity) disturbances (p.143)., associated with delusion and hallucination.

(2) Mania : Excitement (overactivity) occurs in acute mania (p.119). To differentiate manic from schizophrenic excitement see p. 120.

(3) Agitated depression : It occurs in a) mixed manic and depressive states (p.128). b) Involutional depression (p.132) The excitement is associated with the other manifestations of acute depression (p. 132) particularly the mood of depression (associated usually with anxiety and fear), the delusions (self-reproach, poverty and hypochondriacal), and the aggression towards self (with danger of suicide).

(B) Neuroses :

(1) Hysteria (p.93) may present itself with excitement. Investigation shows an unconscious motive which enables the patient to escape from some stress (difficulty) or to gain some advantage. The

characteristic features are similar to those mentioned with the hysterical fit (p. 100).

(2) Acute anxiety state (Panic anxiety disorder) (p. 86).

(C) Sociopathic personality (the aggressive type) : it shows episodic excitement, the characteristic features of which are described on p. 162.

II – Organic disorders (secondary mental disorders) :

(A) Acute organic reaction type (Delirium p.180) : The excitement is characterized by having an organic cause (acute infection or intoxication), and by the associated disturbed consciousness.

(B) Chronic organic reaction type (p.182) : Excitement may occur in any of the diseases mentioned under (1) the primary group e.g. the senile and presenile psychoses (2) the secondary group e.g. cerebral arteriosclerosis, neurosyphilis, nutritional disturbances, head injury and epilepsy. The associated manifestations will help in arriving at the responsible cause e.g. the pupillary changes in neurosyphylis.

Epilepsy is an important cause of excitement; for the characteristic features see p.137.

TREATMENT :

I – Treatment of the excitement : (p. 57).

II – Treatment of the underlying cause.

Stupor

Definition : (see p.18). In stupor the patient's activity is reduced to a minimum.

ETIOLOGY :

I – Psychogenic causes :

(A) Psychoses :

(1) Depressive stupor (p.127) : the stupor is due to an intense psychomotor retardation (inhibition). The idea of death occupies the patient's mind, and is regarded by him a sort of punishment or purification for his wickedness.

(2) Schizophrenic stupor : It occurs in catatonic schizophrenia (p. 146) The stupor is due to severe disturbance of behaviour (motor activity retardation or anergia), affect (indifference) and intellect (thought blocking).

Differentiation between depressive and schizophrenic stupor may not be

easy. a) If the patient can give any answer regarding his mood, or if the relatives can supply an information about it before the condition had become severe, leading to mutism i - the depressed is found miserable, while ii - the schizophrenic feels contented and prefers to be left alone. b) Waxy flexibility occurs more in schizophrenic stupor.

(3) Manic stupor (p.128).

(B) Neuroses : Hysterical stupor is mentioned on p. 98 Investigation of the unconscious motive and the premorbid personality will help in diagnosis.

II – Organic causes : Stupor may occur in :

(A) Acute organic reaction (Delirium) p.

(B) Chronic organic reaction which may be :

(1) Focal lesion in the region of 3rd. ventricle and upper midbrain (e.g. tumor or encephalitis) that leads to akinetic mutism.

(2) General causes : a) intoxication : endogenous as uremia and exogenous as drugs b) hypoglycemia c) electrolyte and fluid disturbance.

Differentiation between psychogenic and organic stupor :

(1) State of consciousness : It is slightly affected in psychogenic stupor and is liable to be disturbed in the organic type.

(2) Negativism and automatic obedience (waxy flexibility) : they occur more characteristically in psychogenic stupor, but may occur in the organic type (e.g. uraemic stupor).

(3) Recovery : It is usually sudden in psychogenic stupor, in contrast to the gradual recovery which occurs in organic stupor.

TREATMENT :

I – General management and nursing care (p.56), particularly the refusal of food and the retension of urine and faeces.

II – Treatment of the underlying cause.

Suicide (Deliberate Self-harm)

Suicide is that act by which the individual, with conscious self-destructive intent, puts an end to his life by his own hands. It is a psychiatric problem as well as a social one.

Incidence : It varies in the different countries, being about 10 per 100,000 population, and 1% of all deaths. The rate increases with age, more than twice as common in men, more in the socially isolated (unmarried and widowed), and highest in the spring.

Methods : Poisoning by hypnotics is the most common. Other methods are : co gas, hanging, drowning, shooting, jumping and burning.

Neurochemistry : deficiency of serotonin (5-HT) has been linked to suicidal behaviour.

ETIOLOGY :

I – With abnormal mentality (very common) :

(1) Depressive state : particularly the endogenous one which form about 90% of cases. In it there is much sense of guilt and self-reproach, and the suicide signifies a self-punishment (p.124).

(2) Personality disorders :

a) Sociopathic personality : particularly in the aggressive type, during the episodes of the disorder of conduct. The motive may be a revenge one i.e. the desire to inflict suffering on other (e.g. parents) by the patient's death (p.162).

b) Drug addiction : Alcoholism is a common cause abroad.

(3) Schizophrenia : the suicide may be due to commands of auditory hallucination, or a means of escape from the persecutors.

II – With normal mentality (very rare) :

(1) *Social problems :* A philosopher said that, if life has become an insoluble problem, putting an end to it is the most logic solution. But in practice, it is comparatively rare to find that suicide is a direct reaction to the outside circumstances i.e. as a result of reactive depression due to unemployment, grief, poverty and loneliness (the aged, divorced, widow or widower, and immigrants). However we must not underrate the suffering which may be caused by such external events.

(2) *Somatic diseases :* It is very rare for a patient with an organic disease and normal mentality to commit suicide, even if the organic disease is causing a lot of pain, as in certain cases of cancer.

Suicidal attempts : These are much commoner than suicide. In them there is either a conscious or unconscious call to the society for help.

Suicidal talks and threats : These must be taken seriously since they are often (1) calls for help and (2) danger signals.

Suicidal gestures : These are usually carried out by the hysteric to manipulate the environment. It may be very difficult to differentiate between a suicidal gesture and a true suicidal attempt.

TREATMENT : (1) Preventive measures were mentioned on p.57 (2) *Therapeutic measures* if the suicidal attempt fails : a) crisis intervention (p. 62) b) the underlying cause has to be treated (e.g. endogenous depression).

The legal aspect : Legally, suicide is regarded as a crime; should the person fail in his attempt he is tried as responsible, unless insanity is proved.

A suicidal attempt, alone, is not a sufficient cause for certification.

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