

## LIST OF TABLES

<b>Table</b>		<b>Page</b>
(1)	Demographic characteristics of the studied neonates	35
(2)	Maternal data of the studied neonates in both groups	36
(3)	Resuscitation data of the studied groups	38
(4)	The clinical data of the studied groups on admission	40
(5)	The respiratory status of the studied groups on admission	42
(6)	Initial settings of ventilation among the studied groups	44
(7)	Indices of oxygenation and ventilation on admission	46
(8)	The Incidence of hypercarbic and hypocarbic episodes for each neonate during the course of the disease	47
(9)	Incidence of successful extubation among the studied groups	48
(10)	Duration of Ventilation and hospital stay among the studied groups	49
(11)	Pulmonary, cardiac and neurological complications of the studied groups	50
(12)	Comparison between the studied groups according to nosocomial infection	51
(13)	The PIP changes during the first 2 days of ventilation among the studied groups.	52
(14)	The FIO <sub>2</sub> changes during the first 2 days of ventilation among the studied groups	54
(15)	The ETV changes during the first 2 days of ventilation among the studied groups	56
(16)	The MAP changes during the first 2 days of ventilation among the studied groups.	58
(17)	The dynamic lung compliance changes during the first 2 days of ventilation among the studied groups.	60
(18)	The lung resistance changes during the first 2 days of ventilation among the studied groups.	62

## LIST OF FIGURES

Figure		page
(1)	The pulmonary injury sequence. The diagram illustrates the effect of ventilator-induced injury and other factors on lung development and their relation to chronic lung disease (CLD)	4
(2)	Non-homogeneous aeration in RDS	6
(3)	Working principle of a pressure limited time cycled continuous flow ventilator	15
(4)	Factors influencing tidal volume during pressure-limited, continuous flow ventilation.	15
(5)	Classification of ventilator modes	17
(6)	Flow measurement in neonatal ventilators and the effect of changes in lung compliance.	20
(7)	Static volume-pressure relationship of the respiratory system	23
(8)	The percentage of the studied neonates in both PLV and VTV group who had maternal risk factors or received antenatal drugs.	37
(9)	Apgar score at 5 min of the studied neonates.	39
(10)	The distribution of the studied neonates who needed positive pressure ventilation in resuscitation.	39
(11)	The clinical data of the studied groups	41
(12)	The respiratory status of the studied groups on admission	43
(13)	The median PIP, PEEP, MAP and FIO <sub>2</sub> and its range on admission among the studied groups.	45
(14)	The mean ETV and measured RR and its standard deviation among the studied groups.	45
(15)	The mean indices of oxygenation and ventilation on admission and its SD among the studied groups .	46
(16)	The number of the hypercarbic and hypocarbic episodes for each neonate during the course of the disease among the studied groups.	48
(17)	The median duration of Ventilation and its range among the studied groups	49
(18)	The Percentage Of Pulmonary, Cardiac And Neurological Complications Of The Studied Groups	50
(19)	The PIP changes during the first 2 days of ventilation among the studied groups.	53
(20)	The FIO <sub>2</sub> changes during the first 2 days of ventilation among the studied groups.	55

<b>Figure</b>		<b>page</b>
(21)	The ETV changes during the first 2 days of ventilation among the studied groups.	57
(22)	The MAP changes during the first 2 days of ventilation among the studied groups.	59
(23)	The dynamic lung compliance changes during the first 2 days of ventilation among the studied groups.	61
(24)	The lung resistance changes during the first 2 days of ventilation among the studied groups.	63
(25)	The Software algorithm of VTV	65