

AIM OF THE WORK

Although the previously mentioned researches were succeeded in increasing the oral bioavailability of etodolac, there were no enough studies on the development and stability of dosage form containing the above mentioned attempts. From this point of view, the aim of the present work is the development of an oral dosage form expressed as soft gelatin capsule for etodolac formulated in lipid vehicle according to LFCS and in hydrophilic vehicle as a different attempt to enhance the oral bioavailability of etodolac. In addition, study the effect of these systems on the stability of soft gelatin capsule after encapsulation process will take place.

2. EXPERIMENTAL

2.1. Materials

- Etodolac was purchased from Kreative organics, India
- Polyoxyl 40 hydrogenated castor oil was purchased from Basf, USA.
- Polyoxyl 35 castor oil was purchased from Basf, USA.
- Polyethylene glycol 400 was purchased from Parchem, USA.
- Poloxamer 407 was purchased from Croda, UK.
- Propylene glycol was purchased from Arrowchem, China.
- Bees wax was purchased from Kahlwax, Germany.
- Hydrogenated vegetable oil Type I (melting point: 57-85°C) was purchased from Parchem, USA.
- Hydrogenated vegetable oil Type II (melting point: 20-50°C) was purchased from Adm, USA.
- Soya lecithin oil was purchased from Adm, USA.
- Span monooleate (Span 80) and span trioleate (Span 85) was purchased from Croda, USA
- Soya bean oil was purchased from Croda, USA.
- Tween 80 was purchased from Adina chemicals, UK.
- Ethyl alcohol 95%, El naser chemical Ind, Egypt

2. 2. Equipment

- Eight stations dissolution apparatus,(SR 8 plus, Hanson research, USA)
- UV-1800 double beam spectrophotometer (Shimadzu, Japan)
- Locally made mechanical strength tester
- Jenway digital pH meter,(Jenway, UK)
- Digital viscometer,(Brookfield, USA)
- Thermostatically shaking water bath,(Bunsen, India)
- HPLC system,(Agilent 1200 series, USA)
- Electric homogenizer,(IKA T25, Germany)
- Sensitive electronic balance,(AND, Japan)
- Ultrasonic cleaner,(Branson, Mexico)
- Electric oven,(Ecocell, Medcenter Einrichtungen GmbH, Germany)
- Karl Fischer instrument,(Metrohm, Switzerland)
- Magnetic stirrer, (IKA RH basic 2, Germany)