INTRODUCTION

Meconium is the distinctive intestinal contents of the fetus presented by the 16 th week of gestation [Nelson ,1992].

It is a viscous green liquid that consists of gastro intestinal secretion , bile acids ,mucus, pancreatic juice, cellular debris , amniotic fluid swallowed, vernix caseosa, languo and blood .

Many diseases are induced by meconium changes .

Meconium aspiration syndrome is a major problem in the newborn infant. Meconium blocks the air ways and causes a chemical pneumonitis which is usually complicated by pneumothorax and pneumo mediastinum. Pulmonary vaso spasm and renal failure may be associated with meconium aspiration [Brady,1979].

Acute or chronic hypoxia may result in the passing of meconium in utero by the fetus that causes amniotic fluid contamination by meconium. Meconium aspiration before or during birth can obstruct the airways and interfere with gas exchange and cause severe respiratory distress (Cloherty and jose , 1985).

Bile salts contained within meconium may cause chemical pneumonitis (Oeleberg et al 1985).

Meconium stained amniotic fluid is seen in 5- 15 % of births but this syndrome usually occurs in full term or post term infants. Usually but not invariably there has been fetal distress and hypoxia with passage of meconium into amniotic fluid (Murphy et al 1984).

Mothers who are at risk of uteroplacental insufficiency include those with toxaemia or increased blood pressure, heavy smokers , and those with chronic respiratory or cardiovascular disease and those with poor uterine growth. These women should be monitored during pregnancy and they should have fetal heart rate monitoring

during labour with fetal scalp blood samples for pH when indicated (Cloherty and Jose 1985).

Aim of work

The aim of this thesis is :-

1- study the physiology of meconium formation, composition, passage, constipation enterohepatic circulation, its relation to neonatal jaundice

2- The pathophysiology of disorders related to meconium i.e Meconium stay, meconium aspiration and meconium plugs.

3- The physiological and pathological factors controlling the formation, metabolism of meconium.