RUPTURE OF THE UTERUS

Thesis

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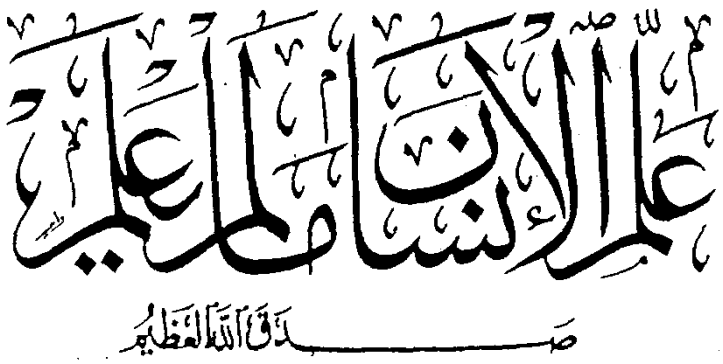
بسم الله الرحمن الرحيم



صدق الله العظيم

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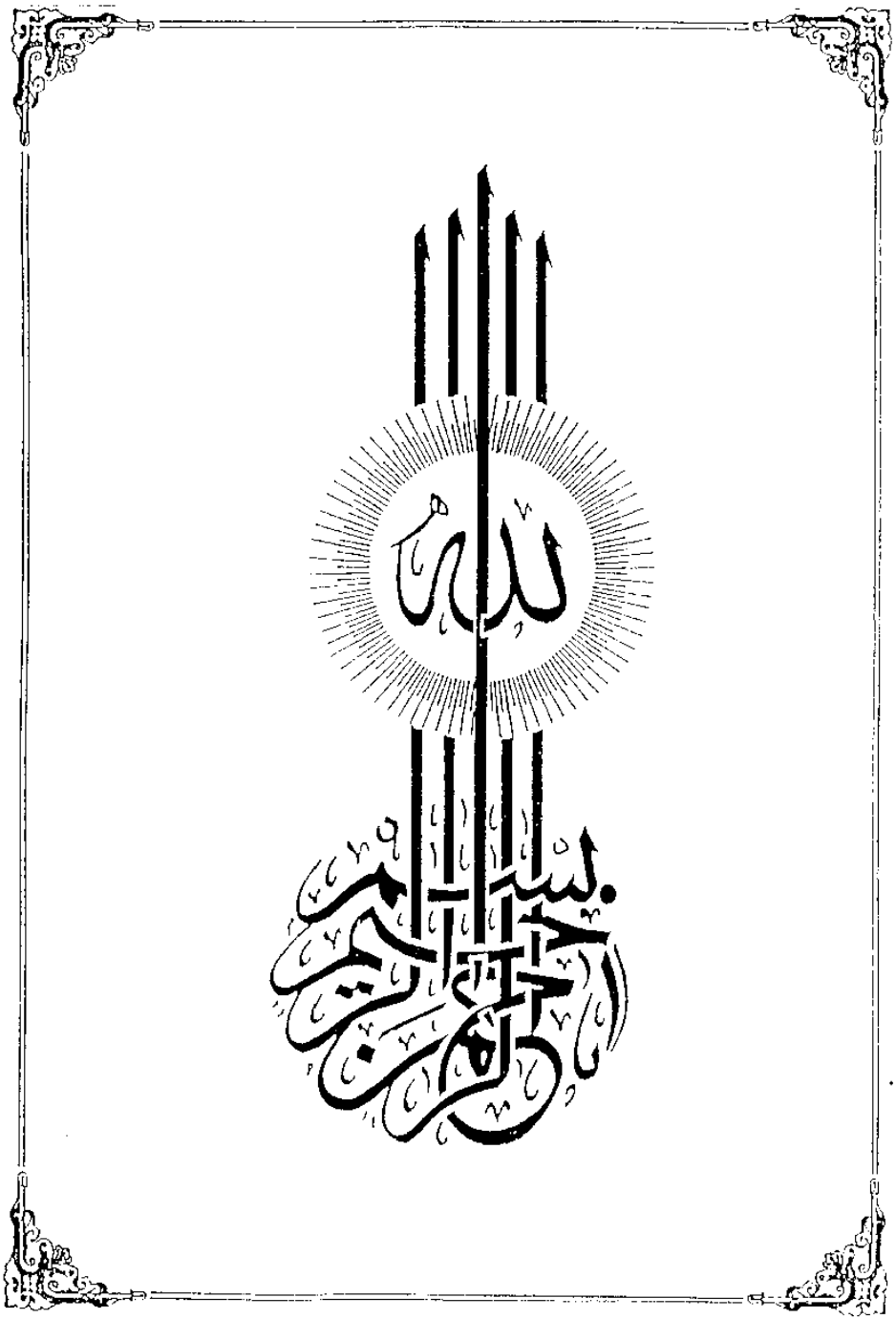

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Introduction

INTRODUCTION

Rupture of the uterus is one of the most serious accidents occurring in obstetric practice. It is frequently seen in under-developed countries and reflects poor obstetric practice.

To any obstetrician, the mention of uterine rupture at once suggests a badly managed labor. It continues to be one of the most serious complications and one of the most catastrophic maternal injuries during pregnancy and labor, that may threaten the life of both mother and fetus. Even when mother survive and also her baby, mother´s future childbearing capacity is usually affected.

While the frequency of uterine rupture from all causes probably has not decreased markedly during the past several decades, the etiology of rupture has changed appreciably and the outcome has improved significantly *(Williams, 1985)*.

Unfortunately, it is more likely to occur and to be a more serious threat to life in rural areas of developing countries, where obstetric care is often limited and transportation is poor.

Helwan is a city surrounded by many rural areas. Helwan General Hospital was noticed to receive a lot of cases of uterine rupture more than the ordinary rates received by the other hospitals. This fact, encouraged us to study this serious obstetric problem.

Definition

DEFINITION

The term rupture of the gravid uterus refers to, disruption of the uterine wall after fetal viability *(Hughes, 1972)*.

This definition is limiting the uterine rupture to the period from viability of the fetus to its birth, although rupture uterus may occur before viability of the fetus, e.g. perforation during surgical evacuation and curettage and also in cases of perforating mole.

Uterine rupture may be defined according to the time of occurrence whether antepartum or intrapartum *(Hughes, 1972)*. Also, according to whether the uterus was scarred or unscarred. If there is relatively asymptomatic separation of previous uterine scar the term silent dehiscence or incidental rupture may be applied. In this type of rupture only the peritoneum covers the fetal membranes, sometimes this uterine scar dehiscence is designated simply as incomplete rupture *(Richard, 1981)*.

Spontaneous rupture indicates the absence of an identifiable cause. Both spontaneous and traumatic ruptures of the uterus may occur in the intact or the surgically scarred uterus *(Lawson and Ajabor, 1968)*.

It is customary to distinguish between complete and incomplete rupture of the uterus, depending on whether the laceration communicates directly with the peritoneal cavity or is separated from it by the visceral peritoneum over the uterus or that of the broad ligament. An incomplete rupture may, of course, become complete at any time *(Williams, 1985)*.

It is important to differentiate between rupture of the cesarean section scar and dehiscence of C.S. scar. Rupture refers, at the minimum, to separation of the old uterine incision throughout most of its length, with rupture of the fetal membranes so that the uterine cavity and the peritoneal cavity communicate. In these circumstances all or part of the fetus is usually extruded into the peritoneal cavity. By contrast, with the dehiscence of a cesarean section scar, the fetal membranes are not ruptured and therefore the fetus is not extruded into the peritoneal cavity. Typically, with the dehiscence, the separation does not involve all of the previous uterine scar. Dehiscence occurs gradually, where as rupture is very likely to be symptomatic and, at times, fatal. With labor or intrauterine manipulations a dehiscence may become rupture *(Williams, 1985)*.

A shift from simple anatomical description to consideration of forces predisposing to uterine rupture has resulted in a new system of classification, three categories of uterine rupture are recognized:

1. Uterine rupture in the presence of a previous operative scar, including prior C.S., hysterotomy, myomectomy, or cornual resection.

2. Rupture of an unscarred uterus in which external forces or trauma are known or suspected to have played a role.

3. Rupture of an unscarred or intact uterus to which no known or suspected external force or trauma contributed {spontaneous rupture} *(Shreve and Russo, 1983)*.

Recently, uterine defects were subcategorized according to the need for operative intervention. Scar separation that required no intervention were termed ***"dehiscence"***; those that did require operative intervention were termed ***"uterine ruptures"*** *(Phelan et al., 1987)*.

Uterine defects that were either visualized at the time of repeat cesarean section or palpated after successful vaginal delivery were defined as ***"asymptomatic uterine windows"***. Any defect that involved the entire uterine wall,

was symptomatic, or required operative intervention was defined as a ***"true uterine rupture"*** *(Flamm et al.,1988).*

Incidence