A RETROSPECTIVE AND PROSPECTIVE STUDY ON CAESAREAN SECTION BIRTH RATE IN MANSHIAET -EL-BAKRY GENERAL HOSPITAL

THESIS

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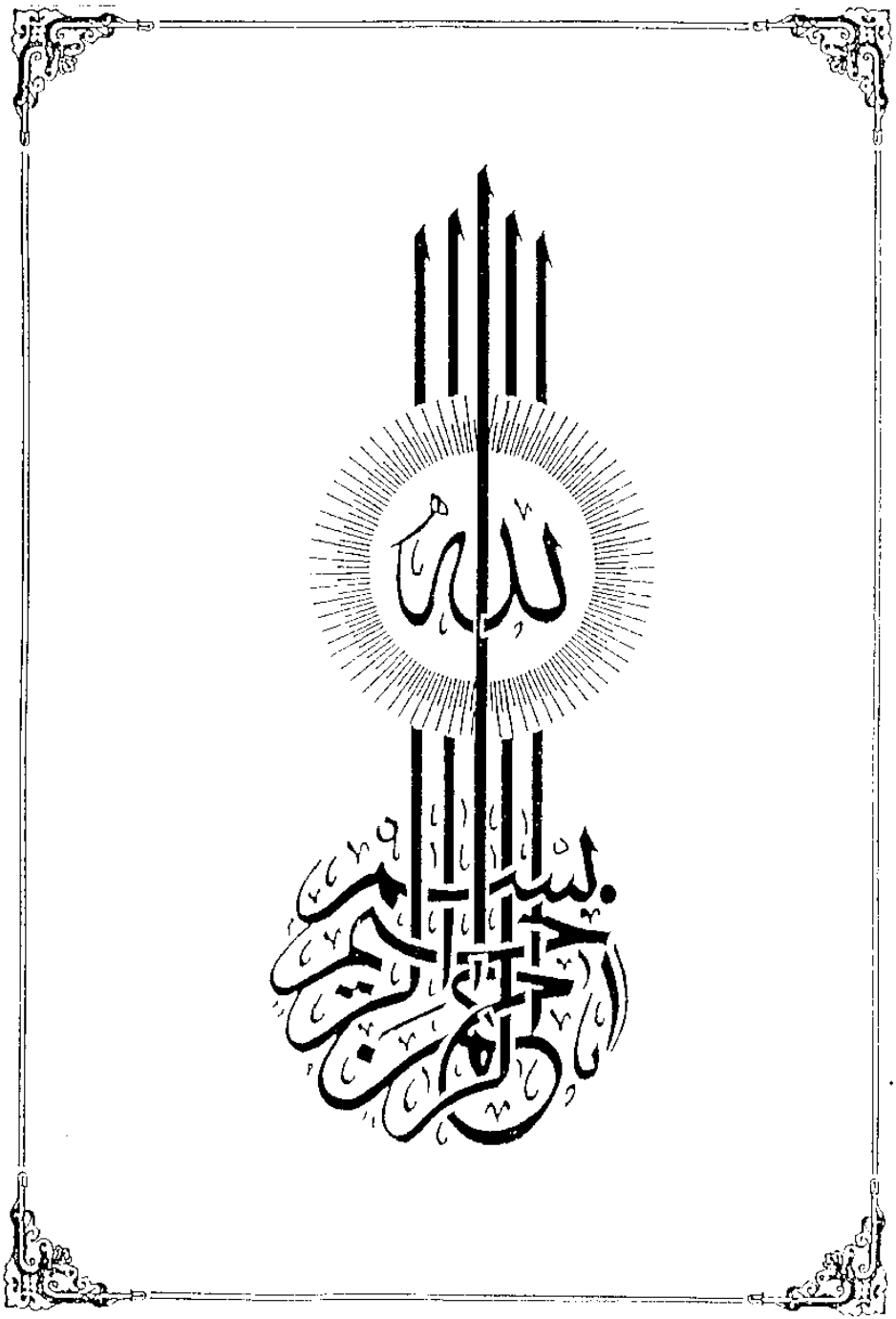

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GENERAL INTRODUCTION

INTRODUCTION

Caesarean section birth rate has increased tremendously in the last decade. Although C.S. is the most frequent operation practiced in the Department of Obstetric and Gynaecology at Manshiet El-Bakry Hospital, no data are available about its frequency, indications, foetal outcome, and maternal morbidity and mortality.

The aim of the work is to statistically evaluate the collected data of the operation through -a retrospective study including the years 1981 and 1982 and a prospective study in the first 6 months of this year.

By analysis of the collected data recommendations would be suggested for better foetal and maternal outcome of the operation.

REVIEW OF LITERATURE

CAESAREAN SECTION

Definition:

Caesarean section is defined as delivery of the foetus through incisions in the abdominal wall (Laparotomy) and the uterine wall (hysterotomy). Therefore it does not include removal of the foetus from the abdominal cavity in case of rupture of the uterus or abdominal pregnancy.

The term is restricted to the delivery of a viable baby, while the transabdominal delivery of a previable baby is called abdominal hysterotomy.

Vaginal caesarean section or better termed vaginal hysterotomy is the operation in which an incision is made per vagina through the cervix and lower uterine segment. It does not properly fall under caesarean section.

Abdominal delivery has been mentioned to be done without uterine incision. This could be done through the extraperitoneal approach to the vagina and delivery through the fully dilated cervix. This was called "laparoelytrotomy" (Goodlin et al., 1982).

Historical note:

Abdominal delivery of the foetus from the dead gravida datea to antiquity and was required by religious law as early as 3000 B.C. in Egypt and 1500 B.C in India. In 715 B.C. when Roman law was codified into the Lex Regia, it mandated that postmortem caesarean be performed for the purpose of separate burial, even if there were no chance of foetal survival.

In Imperial Rome, this body of law became known as lex cesare. The term "section" is derived from the latin verb "seco" meaning to cut. Hence, the term "Caesarean section" has derived either from its association with the Roman law or with the latin verb "caesere", to cut. A past misconception of the origin of the term was the mistaken belief that Jullius Caesar was born by this method. The practice of postmortem caesarean continued in Europe and was recorded as the method used to deliver King Edward VI of England in 1537 (Brain, 1976).

The case often performed on a living woman is that attributed to a German gelder named Jacob Nufer, who is said to have carried out the operation on his wife in the year 1500. Not only did his wife survive (a miracle in itself) but she lived to give birth to two subsequent children after normal labours, in a period when suturing

of the uterine wound during caesarean section was unknown. The case was not reported until almost a hundred years later (1591), by an author who based his description on hearsay handed down through three generations (Pritchard et al., 1980).

Authoritative statements by dependable obstetricians about early use of the operation, however, did not appear in the literature until the mid 17th century, as for instance in the classic work of the great French obstetrician Francois' Mauriceau, first published in 1668. These statements show without doubt that the operation was employed in the living in rare and desperate cases during the latter half of the 16th century, and that it was usually fatal (Pritchard et al., 1980).

In Great Britain and Ireland, the maternal death rate from the operation had mounted in 1865 to 85%. In Paris, during the 90 years ending in 1876, not a single successful caesarean section had been performed (Pritchard et al., 1980).

In the United States, the first documented caesarean operation on living mother was performed in 1827 in Newton, Ohio, by Dr. John L. Richard (King, A.G. 1970). Although the foetus was sacrified in delivery, the mother survived without the benefits of anaesthesia, suturing the uterus,

fluid or blood transfusion, sterile technique or antibiotics.

A dramatic modification of the operation of caesarean section was introduced by the Italian obstetrician, Porro, in 1876. He extracted the foetus and placenta and then amputated the body of the uterus and fixed the cervical stump to the lower angle of the abdominal wound where the bleeding could be atopped by pressure. Immediately the maternal mortality fell to about half its previous figure.

In 1882 a revolutionary improvement in the technique of caesarean aection was adopted by Sanger, i.e., suturing the uterine wound before its replacement in the abdomen. Suturing the uterus was first advocated by Lebas, 1769 (Myerscough, 1977), just a hundred yeara before Porro advocated hysterectomy. This was opposed by the pundits in obstetrics of those days, until Sanger in 1882 adopted it, although Kehrer has the priorty by a few months (1881).

Although the introduction of uterine sutures reduced the mortality rate of the operation from haemorrhage, generalized peritonitis remained the main cause of death; hence various types of operations were deviced to meet this scourge. The earliest was the Porro procedure (1976), in use before Sanger's time (1882), which combined subtotal caesarean

hysterectomy with marsupialization of cervical stump.

During the 19th century and early part of this century two other contributions were made in the technique of caesarean section. The first was an attempt to expose and enter the uterus extraperitoneally. The other was placement of the incision in the lower uterine segment, the purpose of both was to decrease the hazard of peritoneal infection.

Firstly, the extraperitoneal approach to the uterus was employed by Ritgen of Giessen (1821). The case was described by Marshall (1939). Ritgen's technique was modified and improved by Gaillard Thomas (1870) of New York, later by Latzko (1909) and Doderlein, and in recent years by Everard Williams of London, by Burns of New York (1930) and Norton of Jersy City. In its original form it consisted in making a lateral incision (left) through the abdominal parieties, and dissecting off and pulling the bladder over to the right until the lower segment was exposed. Through this area an incision was made and the child was extracted (Myerscough, 1977).

With the median approach, the lower segment of the uterus is reached by dissecting an upper and a lower flap. The upper flap consisting of peritoneum stripped of the vault of the bladder and of the loose peritoneum of the uterovesical pouch, is pushed upwards, while the lower flap with bladder

attached is dragged upward, off the anterior wall of the lower segment of the cervix. Through this cleft access to the "lower segment" is obtained. This technique was suggested by Dr. Physick in 1824 and conveyed to Professor Dewees (1768 - 1841) of the university of Philadelphia in obstetrics a pioneer of international repute. But neither Physick nor Dewees ever performed the operation (Myerscough, 1977). It was not attempted until 1907 when Frank and later Sellheim unsuccessfully tried it. The essential step in the operation is picturequely described by Waters (1904).

Secondly, placement of the incision in the lower uterine segment, in 1882 Kehrer of Heidlberg was the first to advise procedure which approached the lower uterine segment.

Transperitoneally the lower uterine segment was opened through the utero-vesical fold of peritoneum. With care not to disturb the bladder, the uterus was closed by two lines of interrupted sutures. The first including the entire myometrium and the second approximating the vesicouterine fold of peritoneum.

Kehrer was really the father of the "lower segment operation" as employed today when he performed the