# A RETROSPECTIVE STUDY OF CASES DELIVERED BY CAESAREAN SECTION IN THE LAST THREE YEARS

Thesis

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By



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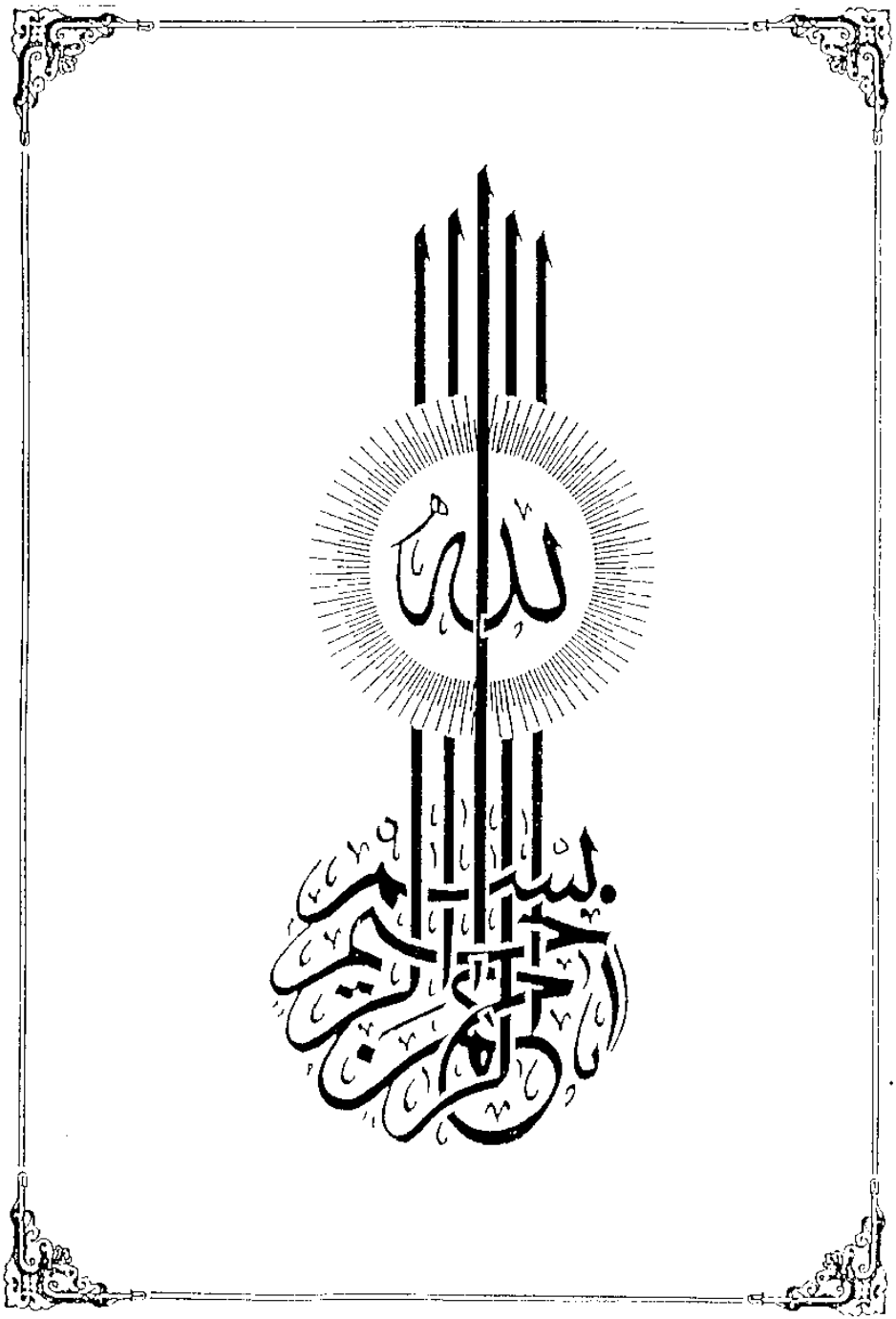

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# INTRODUCTION

# INTRODUCTION

Caesarean section may be defined as delivery of the infant through incisions in the abdominal and uterine walls after the 28 th week of pregnancy.

It is almost certainly one of the oldest operations in surgery and obstetrics.

Its scope has now increased markedly during the last 50 years, that is now used in almost all complications of pregnancy and labour. The origin of the term caesarean section may be, according to legend, that julius caesar[4] was born in this manner and the procedure became known as the caesarean operation.

Historical details of the origin of the family name caesar are found in Pickrell's monograph.[15]

In the (18 th century B.C.), a Roman law supposedly created by Numa pomphillius ordering that the procedure be performed upon women dying in the last few weeks of pregnancy in the hope of saving the child. This explanation

then holds that this lex regia as it was called at first became the lex caesarea, and the operation became known as the caesarean operation.

The word caesarean operation was derived sometimes in the middle ages from the Latin verb caedere "to cut". An obvious cognate in the word "Caesura" a cutting.

In regard to julius caesar, Pliny adds that it was from this circumstance that the surname arose.

Caesarean section on the living was first performed and the current name of the operation used, in the celebrated work of Francois Rousset.(17)

In 1865, the maternal death rate from the operation in Great Britain and Ireland had mounted to 85 percent. In paris, during the 90 years ending in 1876, not a single successful caesarean section has been performed.

The turning point in the evolution of caesarean

section came in 1882 when Max Sanger[19] introduced suturing of the uterine wound in two layers, muscle and peritoneum with silk, and the mortality dropped to 5 perecent or less.

The problem of haemorrhage was the first and most serious problem to be solved by Eastman's[6] review (1932).

Although the introduction of uterine sutures reduced the mortality rate of the operation from haemorrhage, generalised peritonitis remained the dominant cause of death. Hence various types of operations were devised to meet this problem.

The earliest was the Porro procedure, in use before sanger's time, which combined subtotal caesarean hysterectomy with marcupialization of the cervical stump.

The first extrapertioneal operation was described by

Frank[8] in 1907 and with various modifications, as intr-oduced by Latzko, Sellheim and by waters (1940) were employed until recent years.

The next phase in development of the modern technic of caesarean section was concerned with simpler operations to roduce infection.

In 1912, kronig, in order to reduce infection by using the extraperitioneal technic through the lower uterine segment with minor modifications, this low segment technic was introduced into the united states by Beck[3] (1919) and popularised by DEFEE[5](1922) and others.

A particularly important modification was recommended by Kerr[9] in (1926) who preferred the transperitoneal lower segment operation with a transverse rather than a longitudinal uterine incision. The Kerr technic is most commonly employed type of Caesarean section to day.

Incidence:

The frequency of caesarean section at Parkland Memorial Hospital has increased markedly during the decade 1964 - 1975 as shown in (Table A). The recent rate for caesarean section of 12.2% is similar to that of some institutions although some-what higher than that of others (Table B). A number of factors undoubtedly have contributed to this, for one, parity decreased appreciably. In 1964 the average parity of women admitted for delivery was 2.44, wheras in 1974 the average parity was 1.26.

In a recent confidential Maternal Deaths report, the incidence of caesarean section in the population was estimated at 4.4 percent, and in the National Health service hospitals at 5.4 percent. This latter figure naturally varies according to the proportion of complicated cases admitted from the area served, the figures of 10 percent or even more are not unusual.

Table (A):

Frequency of caesarean section at parkland Memorial Hospital (1964 - 1975).

| Year | Total deliveries | Caesarean section | Percent |
|---|---|---|---|
| 1964 | 7.323 | 321 | 4.38 |
| 1965 | 6.967 | 353 | 5.07 |
| 1966 | 6.214 | 379 | 6.10 |
| 1967 | 6.069 | 419 | 6.90 |
| 1968 | 5.955 | 437 | 7.43 |
| 1969 | 6.347 | 544 | 8.57 |
| 1970 | 6.779 | 573 | 8.45 |
| 1971 | 6.946 | 614 | 8.84 |
| 1972 | 6.727 | 703 | 10.45 |
| 1973 | 6.505 | 750 | 11.53 |
| 1974 | 6.480 | 791 | 12.2 |
| 1975 | 7.311 | 951 | 13.0 |
| TOTAL | 79.623 | 6.835 | |

Table (B):

Frequency of Caesarean section during 1974 at various institutions.

| | |
|---|---|
| Wilford Hall Air Force Hospital | 13.9 |
| Jackson Memrorial Hospital | 13.2 |
| Grady Memorial Hospital | 12.5 |
| North Carolina memorial Hospital | 12.3 |
| Parkland Memorial Hospital | 12.2 |
| Bosten Hospital for women | 11.0 |
| University of Lowa Hospital | 10.0 |
| U Sc/Los Angeles Country Hospital | 9.3 |
| University of Colorado Hospital | 8.6 |
| University of Oklahoma Hospital | 7.2 |

Indications:

Caesarean section is indicated for dystocia or expected dystocia and for complications which might seriously threaten the life of the mother or of the child should vaginal delivery be employed.

Peel and Chamberlain[14] give a statistical survey of the principal indications for caesarean section in 3509 cases in 1964 expressed as percentage of all indications as shown in table (C).

Table (C):

Indications of caesarean section

| Indication | Percentage |
|---|---|
| Disproportion | 21 |
| Fetal distress | 14 |
| Placenta praevia | 11 |
| Previous caesarean section | 11 |
| Mal presentation | 10 |
| Disordered uterine action | 9 |
| Pre-eclampsia and essential hypertension | 7 |

In disproportion, caesarean section is indicated in all major pelvic deformity.

In fetal distress, if there is clinical evidence of fetal distress in the first stage of labour preferably confirmed by fetal blood sampling to show the presence of fetal acidosis, (1, 2, 7, 18) also whenever the fetal heart shows adverse changes and appearance of meconium in cephalic presentations.

As placenta praevia is responsible for a considrable number of maternal deaths annually, reaching 7-8% of the total maternal deaths in pregnancy and child birth, Caesarean section is performed in types 2,3 and in type I in the interest of the child, also in elderly primigravida.

Caesarean section has to be repeated in most cases as there is a risk of rupture of the scar in any subsequent labour as in contracted pelvis or in repeated intra

uterine fetal death, also in diabetes and in previous upper segment caesarean section.

Peel[13] advocated that there is a general agreement that in diabetes, the fetus should be delivered prematurely at the end of the 37 th week of pregnancy provided that unfavourable condition such as hydramnios or hypertension are absent. The woman's condition must receive daily assessment and any unexplained fall in the daily insulin requirements should be regarded as an urgent indication to effect delivery[11]. The lower fetal mortality achieved by peel in later years of his survey is seen in table (D).

Table (D):

Fetal mortality in diabetic pregnancies from peel's series.

| Years | Total cases | Fetal loss |
|---|---|---|
| to 1948 | 190 | 27.4 % |
| 1949-58 | 303 | 24.4 % |
| 1959-64 | 200 | 11.5 % |