

**STATISTICAL STUDY OF CESAREAN SECTION IN  
EL-SAHEL TEACHING HOSPITAL IN THE YEARS  
1987-1991**

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**By**

**IBRAHIM ABD EL-HAKIM ABD-ALLA  
M.B., B.Ch.**

**SUPERVISORS**

**Prof. Dr. MAHMOUD KARIM**  
Professor of Gynecology and Obstetrics  
Faculty of Medicine,  
Ain Shams University

**Dr. KARIM H.I. ABD EL-MABOUD**  
Lecturer in Gynecology and Obstetrics  
Faculty of Medicine,  
Ain Shams University

**FACULTY OF MEDICINE  
AIN SHAMS UNIVERSITY**

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## **AIM OF WORK**

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This study is undertaken to evaluate the caesarean delivery at El-Sahel Teaching Hospital. A 3 years retrospective study of the period from 1/7/1987 to 30/6/1990 is to be done. Also, a prospective study for 12 months from 1/7/1990 to 30/6/1991.

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# **REVIEW OF LITERATURE**

## Introduction

- I- Cesarean section is defined as delivery of the fetus through incisions in the abdominal wall and the uterine wall. This definition does not include removal of the fetus from the abdominal cavity in case of rupture of the uterus or abdominal pregnancy. (Cunningham et al, 1989).
- II- 1- It is generally assumed that the improvements in the safety of anesthesia, pre- and postoperative monitoring, antibiotics and the availability of blood products, together with altered obstetric practices, are the reasons which have increased the cesarean section rate all over the world. ( Kirkinen, 1988 ).
- 2- By 1984 the cesarean section had already become the most commonly performed operation in the United States. (Rutkow, 1986).
- 3- The rate continues to rise. Currently, approximately one of every four deliveries is by cesarean section. ( Myers and Gleicher, 1988 ).
- 4- And it is predicted that without a change in obstetrical delivery trends, the national cesarean section rate could reach 40 percent by the year 2000. (Placek et al, 1987).
- III- Cesarean section is regarded as a reasonably safe surgical procedure, but it is still associated with higher risks of maternal death and morbidity than vaginal delivery. It is apparent that the mortality risk depends

on the medical and obstetric complications necessitating the section in the first place, the circumstances under which the operation is performed, the preoperative preparation of the patient, and the adequacy of the facility where the surgery takes place. Taking all of these variables into consideration, it is estimated that cesarean delivery is probably two or four times more hazardous to the mother than vaginal delivery.

( Petitti et al, 1982 ).

IV- Legal liability has increased in all areas of medicine, but obstetrics is considered one of the most serious areas for several reasons. There is a certain irreducible fetal morbidity, yet society is coming to expect perfect results. In recent years, performing a cesarean section has been safer from a legal point of view than persisting with a vaginal birth. The impression has developed that if a section were performed, everything possible was done and that any untoward result with difficult vaginal birth could not be defended. Whether true or not from a legal point of view, this impression has had a great impact clinically. (Burchell 1984) Rising malpractice costs and the very real emotional torment the physician faces in being sired inevitably shadow some of this problem. The major question still unanswered is how to avoid brain damage to the fetus. This carries with it the need for the ability to diagnose neurologic risk and damage both before as well as during labor. (Philipson and Rosen 1985).

## History

Cesarean section was apparently first used to extract a living child from a dead, rather than a living child from a living mother. Although cesarean section may have been practiced in early antiquity, the history of the procedure as well as the origin of the name is unknown. The Encyclopedia Britannica states that Pliny attributed it to the family of Julii whose cognomen Cesare (from caedere, the latin for to cut) originated from this alleged manner of their birth. (Loewy, 1987). It seems certain that it did not come about because Julius Caesar was born this way. In Caesar's day, women never survived abdominal births, and it is known that Caesar's mother lived for many years after he arrived, (Hausknecht & Heilman, 1978). Major landmarks in the development of cesarean child birth (Table 1) are discussed briefly in succeeding paragraphs. In the eighth century B.C., the Roman ruler Numa Pompilius established a law requiring that postmortem abdominal delivery be performed whenever a woman died late in pregnancy. The purpose of the statute was twofold : to attempt to save the life of the fetus and to permit separate entombment of mother and fetus. This law, originally termed lex regia, was continued under the rule of the Roman emperors and became known as lex caesarea. (Pauerstein, 1987).

TABLE (1) . MAJOR DEVELOPMENTS IN THE HISTORY OF  
CESAREAN DELIVERY

5th century B.C.	Roman leader Numa Pompilius established the <i>Lex regia</i> requiring postmortem cesarean delivery.
2nd-6th century A.D.	Poorly documented references to cesarean delivery included in the Talmud.
1500	First cesarean delivery in a living patient. Report not published until 1591.
1822	First self-performed cesarean section in the United States.
1830	Richmond is first American physician to perform cesarean section.
1876	Porro performed first cesarean hysterectomy in which both mother and infant survived.
1882	Sanger described closure of uterine wall with wire sutures.
1907	Frank described the extraperitoneal approach for cesarean delivery.
1909	Latzko reported major modification of Frank's technique, ensuring that the operation was entirely extraperitoneal.
1912	Krönig described vertical incision in lower uterine segment.
1919-1922	Beck and DeLee popularized the vertical lower-segment incision in the United States.
1926	Kerr described the transverse lower-segment incision.
1950-present	Improvements in anesthetic techniques, blood-banking technology, and supportive medical care.
1965-present	Increased understanding of the pathophysiology, treatment, and prevention of postcesarean infection.

(Pauerstein, 1987).

The earliest record of a woman surviving cesarean section was in 1500. Jacob Nufer, a Swiss sow gelder, performed a cesarean section on his own wife in her first pregnancy and delivered a live infant. The record states that the infant was so delivered after 13 midwives and 2 lithotomists had given the patient up after a long and arduous labor. Both she and the child survived the ordeal, and ultimately, Mrs Nufer was delivered of 4 other children and a set of twins vaginally. (Weber, 1970).

It was not until 1668 that Francois Mauriceau first published his work describing confirmed reports that the operation was performed on the living during the latter part of the 16th century. The procedure was universally fatal and was used only as a last resort in desperate cases, hence it was referred to as "sacrificial obstetrics". (Beydoun & Lai 1987).

In 1768, Joseph Cavallini described experimental cesarean hysterectomy in laboratory animals and suggested that there might be instances in which such a procedure would be necessary as a lifesaving measure for the gravid uterus. (Pauerstein, 1987).

In 1822, Francis and Beck reported the first self-performed cesarean delivery in the United States. The patient was a 14 year - old servant girl who was pregnant with twins. " While the family was at dinner, she went a distance of perhaps fifty rods from the house, and placed herself on a snowdrift, near a fence, where she was first discovered by her master in the act of covering something with snow, which afterwards proven to be a naked child. As soon as she perceived that she was observed, she immediately ran to the house, with the second child hanging out at the wound, together with a considerable portion of her intestines; laid by her razor and large needle. (Pauerstein, 1987).

In 1830, John Lambert Richmond became the first American physician to successfully perform a cesarean delivery. The patient had been in labour for over 30 hours, but her cervix remained minimally dilated. Alarmed by the deterioration in the woman's condition, Richmond performed a cesarean section . Despite making a classical uterine incision, Richmond was unable to extract the fetus. He made a transverse incision across the back of the fetus by which means he was enabled easily to extract it. ( King, 1971 ).

In 1867, Lister published to a more receptive profession his method of carbolic sterilization. Few great medical discoveries have so rapidly undergone such a radical change in practice, while remaining essentially the same in

principle. It was only a step from antiseptics to asepsis, from the chemical used at close quarters to physical sterilization applied at a distance. Robert Koch, Pasteur, and others had still their roles to play. (Marshal, 1939).

The appalling maternal mortality rate of cesarean section continued. In Paris, during the 90 years ending in 1876, not a single successful cesarean section had been performed. Harris (1879) noted as late as 1879 cesarean section was actually more successful when performed by the patient herself or when the abdomen was ripped open by the horn of a bull.

In 1876, Porro performed the first cesarean hysterectomy in which both mother and child survived. Hysterectomy was recommended as a means of preventing the serious intra - abdominal sepsis that resulted when an infected uterus was left in place. (Pauerstein, 1987).

Towards the latter part of 1847, chloroform and ether were finding their way into most of the large clinics of Europe & America. In 1848, the teachings of Semmelweis were already bearing their first fruits in the First Obstetric Division of the great Viennese hospital; the total maternal mortality during that year had hardly been more than one percent. (Marshal, 1939).