DELIVERY AFTER CAESAREAN SECTION

.. RETROSPECTIVE STUDY IN AIN-SHAMS UNIVERSITY HOSPITAL IN THE YEARS FROM 1982-1985

THESIS

Submitted To Faculty Of Medicine, Ain-Shams University

In Partial Fulfilment Of The Requirements For

The Master Degree In Obstetrics & Gynaecology

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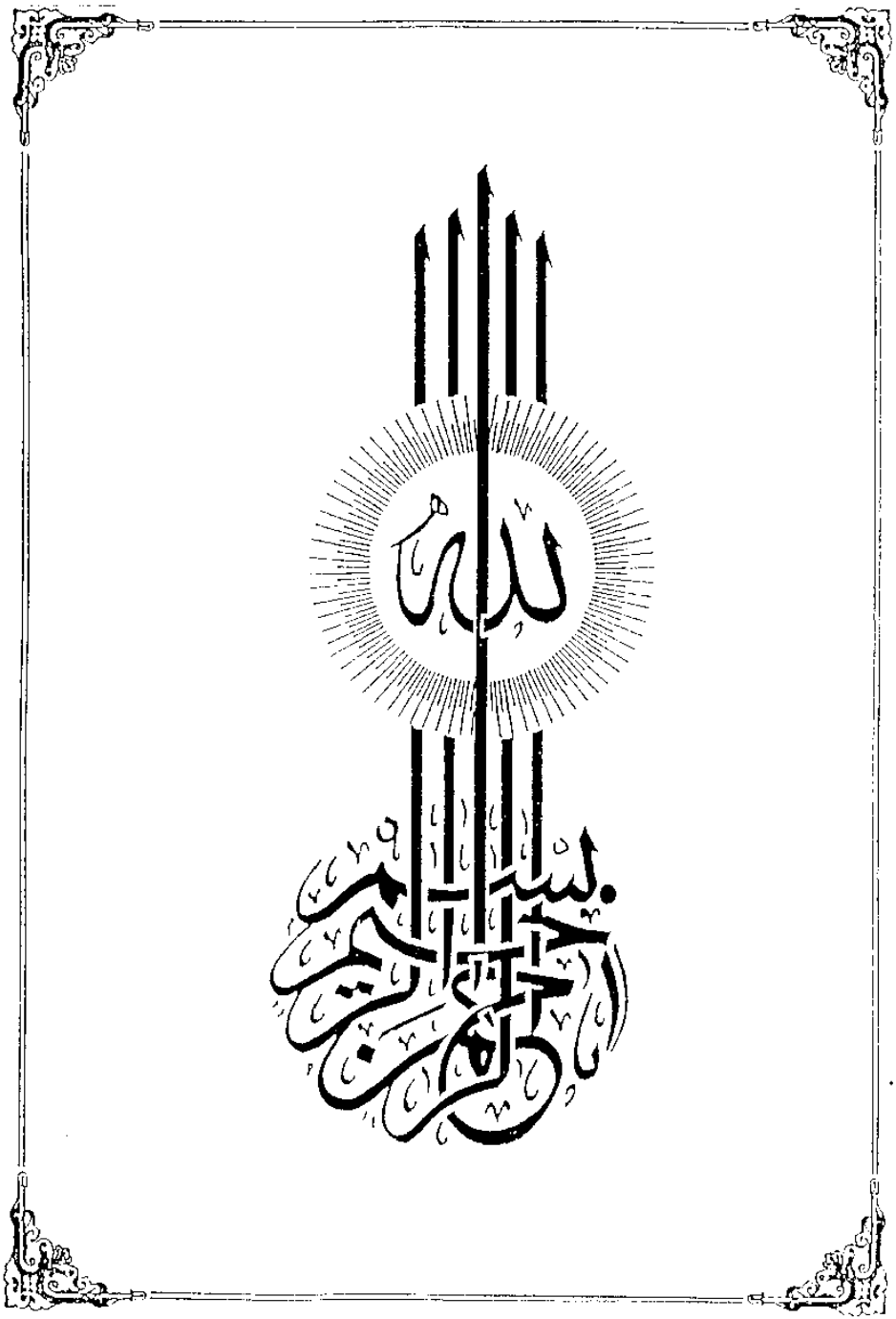
1988



ACKNOWLEDGEMENT
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I wish to express my gratefulness and many thanks to Dr. ABBAS GHAZY, Assistant Professor of Obstetrics and Gynaecology, Ain Shams University for his advice, encouragement and unlimited help.

I present my gratitude and respect to Dr. ALI FARID, Assistant Professor of Obstetrics and Gynaecology for his invaluable supervision and expert guidance during this research.

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INTRODUCTION

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When facing a case with a prior caesarean section, is it safer to allow the patient a trial of vaginal delivery or to do a repeat caesarean section?.

Graham, (1984) reported : "ONCE A CAESAREAN SECTION, ALWAYS A CAESAREAN SECTION" this dictum was first proposed as a clinical dictum by Craigin (1916), it established elective repeat caesarean section as the standard of care in the United States, so that delivery by caesarean section has become much more frequent,with rates now in excess of 10% of all deliveries and even higher in the U.S.A.

The high incidence of classical section,the lack of blood banking and the inadequate means of fetal monitoring made this edict a wise theme for the times (Saldana et al., 1979).

Now, due to changes in the type of uterine incision, combined with advances in technology which allow continuous and accurate monitoring of the mother and the intrauterine fetus, it is widely accepted that an attempt at vaginal delivery should be made unless the indication for the previous caesarean section is recurrent

e.g. contracted pelvis or some new condition has arisen in the present pregnancy indicating caesarean section (Graham, 1984).

Paul et al., (1985), reported the relative safety of selectively permitting vaginal delivery after caesarean section. They stated : "Properly conducted vaginal delivery after a caesarean section is relatively safe with 0.7% incidence of uterine rupture, 0.9% perinatal mortality and no maternal deaths due to uterine rupture".

AIM OF THE WORK

The aim of this retrospective study is to evaluate the mode of delivery, maternal morbidity and mortality and fetal morbidity and mortality among patients with scar of previous caesarean section who were admitted to the department of obstetrics of Ain-Shams University Hospitals from January 1, 1982 to December 31, 1985.

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REVIEW OF LITERATURE

TRENDS IN THE FREQUENCY OF CAESAREAN BIRTHS

During the past 20 years, there has been a dramatic increase in the caesarean birth rate, from less than 5% of all deliveries in 1965 to more than 15% in 1978 (Placek and Taffel, 1980; Bottoms et al., 1980).

Philipson and Rosen (1985), reported that dystocia was responsible for 31% of all caesarean deliveries in 1978 and contributed to 30% of the rise in caesarean birth rates from 1970 to 1978. Repeat caesareans accounted for 25 - 30% of this rate increase and were expected to contribute to an increasing proportion of the rising caesarean birth rate by virtue of the increasing primary caesarean births. Finally, breech presentation and fetal distress each accounted for 10 - 15% of the remaining known causes for the increase.

Minkoff and Schwartz(1980), reported that among the causes for the increasing caesarean section rate, a few might be amenable to reductions, some have probably reached a plateau, and others are destined to rise even farther. Repeat caesarean sections now account for more than 5% of all deliveries. This number will continue to increase as the primary caesarean section rate rises. Thus, it is an important area

in which to try to reduce the use of caesarean section. An attempt could be made to reduce the repeat caesarean section rate by allowing trials of labour for selected patients with previous caesarean section. Merrill and Gibbs (1978) and Others found that almost half of all patients with previous caesarean sections were able to deliver vaginally.

Caesarean sections for fetal distress have increased at a greater rate than any other in the last 10 years. This rise has paralleled the increasing use of fetal monitors and is another area for potential reduction of abdominal deliveries. Paul et al., (1977)noted a section rate of 16% on a monitored group of patients and 7% in a non monitored group. Haverkamp et al.,(1976) reported a caesarean section rate for fetal distress of 7.4% in patients who had continuous fetal heart rate monitoring and a 1.2% rate in those managed with auscultation. There are several possible reasons for the association between monitoring and caesarean section for fetal disress, the most optimistic is an increased ability to detect a compromised baby before it becomes irreversibly damaged. Inability to interpret monitor tracings accurately is a second explanation for the increased caesarean section rate. The third possibility is the stress a

monitored patient may experience because of the use of noisy, incomprehensible machines. Stress is associated with the release of catecholamines and their release may produce vasoconstriction and reduced uteroplacental perfusion with heart rate decelerations (Morishima et al., 1979). The use of fetal scalp sampling, for blood pH, prior to caesarean section is of great importance in reducing the incidence of caesarean sections for fetal distress (Minkoff and Schwartz,1980).

Minkoff and Schwartz(1980), reported that monitors may play a key role in causing the increased caesarean section rate for failure of labour to progress. Haverkamp et al., (1979), noted this indication more often in monitored patients. There have been some suggestions about the reasons for more dystocia with monitoring. First, whereas clinicians previously allowed patients a few hours of labour before performing a caesarean section for lack of progress, they might now use the monitor to reassure them that adequate labour is occurring without dilatation and move more quickly to operative intervention. The monitor is not an accurate gauge of labour unless there is an internal pressure transducer.

In additon, the stress that monitoring might create for patients might also be implicated in the pathogenesis of dystocia. Endogenous catecholamine release can lead to dysfunctional labour.

Malpresentation is the indication among those rapidly increasing that is least likely to be reduced in the future (Minkoff and Schwartz,1980).

Gilstrap et al., (1984) had reviewed 2647 caesarean section through 12 years from 1970 to 1981. The incidence of caesarean section was 8.2, 19.5 and 15.2 percent in the years 1970, 1976 and 1981 respectively. The four most common indications for caesarean section were dystocia, breech presentation, fetal distress and repeat caesarean section. These four indications accounted for 85% of caesarean sections in each of the three time periods 1970 - 73, 1974 - 77 and 1978 - 1981. There was a progressive decrease in dystocia as an indication for caesarean section from 1970 to 1973 through 1974 to 1977 through 1978 to 1981 (39.0 versus 33.0 versus 24.0 percent) respectively.

During the same three time periods there was a parallel progressive decrease in mid-forceps deliveries from (7.8 to 6.7 to 6.1 percent) respectively. Breech

presentation as an indication for caesarean section increased progressively through the three periods,it was (11.0 percent, 17.0 percent and 19.0 percent) respectively. Fetal distress represented the third common indication for primary caesarean section and the fourth common indication for total caesarean section. In the first period 1970 - 73 fetal distress represented (4.0 percent) of total caesarean sections, in the second period 1974-77 it showed a sharp rise to about 3 times the last figure it was (11.0 percent),in the third period 1978-81, fetal distress returned to about its first level in the first period, it was (5.0 percent). The rate of the repeat caesarean section in the three periods were (32.0, 24.0 and 37.0 percent) respectively. Other indications for primary caesarean section such as prolapsed cord and rhesus disease significantly decreased as an indication while herpes, hypertension and twins increased. The caesarean section rate for diabetes mellitus was unchanged over the three time periods. The decrease in the rate of caesarean section in the last period 1978-81 was due to the new criteria and policies undertaken after the sharp increase of caesarean section rate to (20.0 percent) during 1974-77. These policies were established and directed toward assuring an adequate trial

of labour, and to allow selected term frank breech presentation a trial at vaginal delivery. Also the selected use of scalp pH determination for ominous decelerations which may be also the cause of sharp decrease in fetal distress as an indication for caesarean section (Gilstrap et al., 1984).

O'Driscoll and Foley (1983), studied the correlation of decreases in perinatal mortality and the increase in caesarean section rates from 1965 to 1980 in the United States and at the National Maternity Hospital in Dublin, Ireland. They reported that while caesarean section rates were increasing in the United States from less than 5% in 1965 to more than 15% in 1980, in Dublin among more than 108,000 infants born during the same period of time, the caesarean section rate remained virtually unchanged at 4.2, 4.2, 4.1and 4.8 percent in 1965, 1970, 1975 and 1980, respectively Despite the unchanged rate in caesarean sections in Dublin, perinatal mortality fell from 42.1 to 36.5, 24.0 and 16.8 per 1000 infants born during the same years. O'Driscoll and Foley (1983) concluded that these results were compatible with the view that the increased rate of caesarean sections reported in the United States had not contributed significantly to the