STATISTICAL ANALYSIS FOR OBSTETRIC CASES ADMITTED TO KAFR EL-SHEIKH HOSPITAL DURING 1981-1982.

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A Thesis Submitted in partial fulfilment of Master Degree,

obstetrics & Gynaecology.

Presented by

Ahmed Khalil Dissouki Gad alla

M.B., B.ch

Under Supervision of

- Professor Dr. Mahmoud Karim

  Professor of obstetrics & Gynaecology,

  Faculty of Medicine, Ain Shams University.

- Dr. Ahmed Rashed.

  Lecturer of obstetrics & Gynaecology

  Faculty of Medicine, Ain Shams University.

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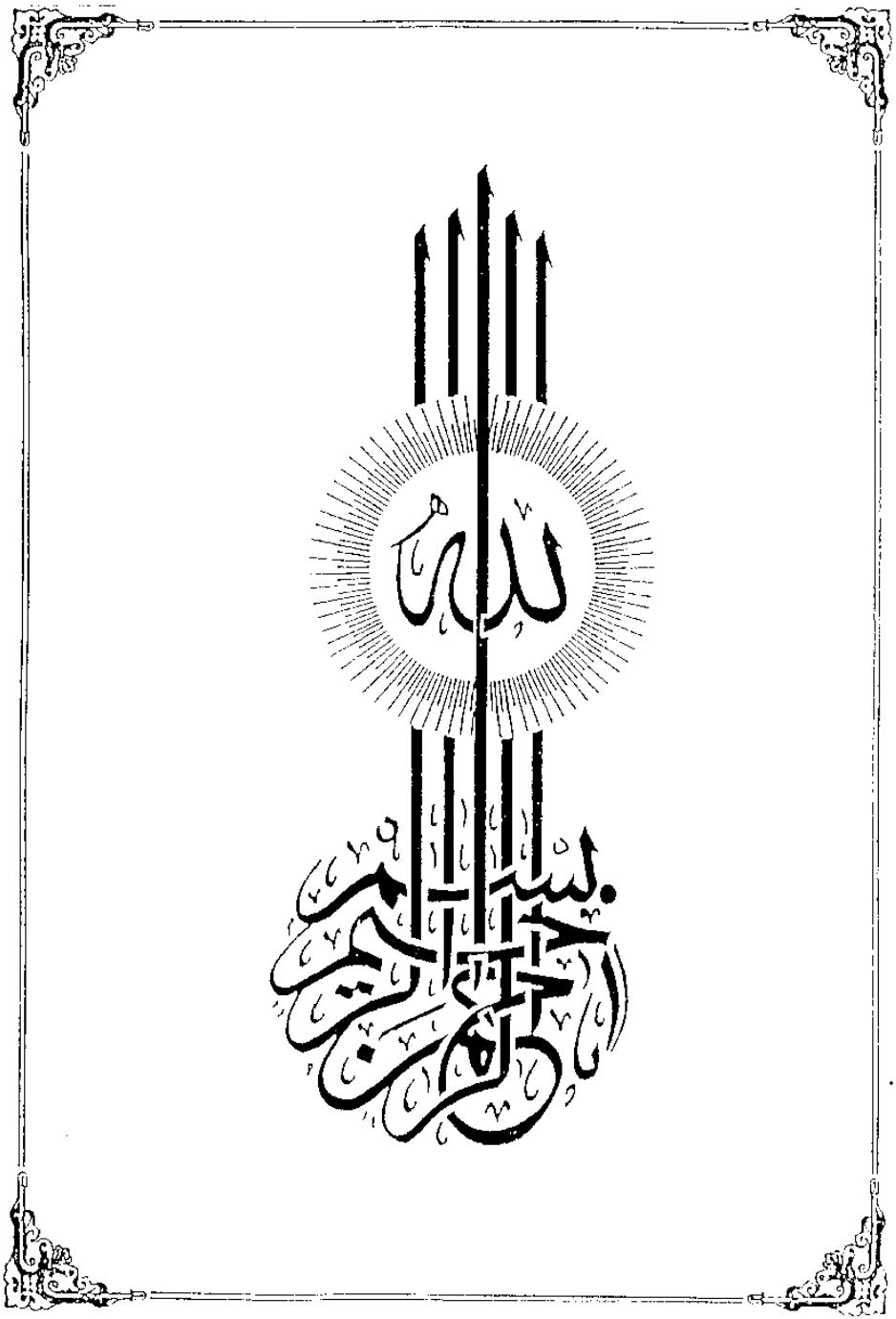

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INTRODUCTION

In developing countries obsteric cases are usually emergency cases, as the concept of antenatal care is not yet accepted by most females specially in rural areas. This pattern of practice is responsible for most of the complications and hazards involving the foetus as well as the mother.

General hospitals play a very important role in giving various medical services needed to pregnant woment. A study of about 3000 obstetric cases admitted to KAFR-EL-SHEIKH Hospital over 24 month as sample was taken to evaluate the magnitute of obstetric problems in the area served by this hospital.

In this study all obstetric cases admitted to Kafr-El-Sheikh Hospital through 1981-82 were involved, in order to evaluate the various complications and methods of management as a trial for improvement of medical services and methods of management applied in general hospitals.

REVIEW OF LITRATURE

The improvment in maternal mortality rates in recent years, is partly due to good antenatal care and better organization of obstetric services.

The Maternal death is defined by Varner et al in (198?) as the death of any pregnant women during pregnancy and within 4? days of termination of pregnancy, irrespective of the duration and the site of the pregnancy.

Baird, (1969) revealed that mortality rate was high until the war years and then fell sharply, with steady fall since 1958, due to improved nutrition of pregnant mothers, good obstetric service, in Maternaty Hospitals as well as the care taken by obstetrician beyond these Hospitals.

Sammour, et al in Egypt (1978) suggested that in the past 50 years the antenatal care resulted in a drop in the Maternal Mortality rates from 4/1000 to 0.2/1000 or less. The chances of a women dying during pregnancy are little greater than those if she were not pregnant over the comparable period of time.

Also Sammour et al (1978) said that perinatal Mortality at a rate of 25 per/1000 is still substantially above the theoritical minimum. The aim of the twentinth century obstetrics is the improvement and prevention of perinatal Mortality and morbidity.

The study of maternal mortality in kasr El Ainin Hospital was done by Sadik et al (1978). The total number of cases admitted to the

obstetric section in period of study (January 1972-December 1976) were 22,598 cases. These included cases of abortions and ectopic pregnancy. The total number of maternal deaths were found to be 93 case. The maternal mortality rate through 1972 was 5.83/1000 but through 1973 there was slight increase in maternal mortality to 5.85/1000. Through 1974 it dropped again to 4.73/1000 with steady fall reaching to 1.57/1000 during 1976.

As regards causes of Maternal deaths in Kasr El Aini Hospital Sadik et al (1978) mentioned that the most important cause of maternal deaths was toxaemia of pregnancy which formed 24.73/100 of all causes of maternal mortality. Next causes were postoperative complications (15.05%) and bleeding (15.05%). Also medical disease as Heart disease, Diabetes Mellitus, and Bronchial asthma formed 13.97% of causes of maternal deaths. Other causes like septic shock, ruptured uterus abortion and ectopic pregnancy were rare.

Varner et al (1982) mentioned that causes of maternal death are divided in to three groups:

(1) Direct obstetric causes leading to 90% of maternal deaths. Infection is the predominant contributor. Pre-eclampsia-eclampsia represent the second most common direct cause of maternal death. Obstetric haemorrhage accounted as other imoprtant cause of death among the pregnant women. Also vomiting of pregnancy and pulmonary embolism following vaginal deliveries were considered as direct obstetric causes of maternal death.

(2) Indirect obstetric causes-as maternal death resulting from previous existing disease or diseases that develop during pregnancy, labour or the puerperium but not directly due to obstetric causes.

(3) Non obstetric causes-a matrnal death resulting from accidental or incidental causes not related to the pregnancy or its management.

Recent data suggested that over one third of maternal deaths attributed to obstetric haemorrhage, and postpartum haemorrhage is responsible for a singificant portion (25%) of these maternal deaths (Hayashi, Castello, and Noah; 1981).

In United States varner et al., (1982) described the changes in the causes of maternal deaths in a major referral hospital over a span of 55 years. There has been a significant decline in maternal deaths from infection, haemorrhage and toxaemia. 58% of direct obstetric deaths in United States during the last 30 years were considred to have been preventable. Heart disease and non obstetric infection as indirect causes of maternal deaths have decreased also.

As mentioned also by Varner et al (1982), the maternal mortality rates in United States have dropped dramatically over the past half century, knowledge of the physiologic alternations in pregnancy, the advent of blood banking and antibiotics,advances in anaesthesiology and delivery in hospital are considered to be the most important scientific and technical advances responsible for the decline in pregnancy-related deaths.

The report of the North-west Metropolitan, regional obstetric survey, London (1962-1964) mentioned that the incidence of breech presentation was 2.23 percent. The total number of cases of breech presented at the time

of delivery was 1610. of these cases, 94.9 percent were delivered in hospital, either as "booked" patients (82.2%), ennergency admissions before the onset of labour (5.4%) or emergency admissions after the onset of labour (12.7%). Of all breech deliveries 22.9% resulted in the birth of premature infant and perinatal mortality were 8.5%.

As mentioned in the report of the North-west Metropolitan, Regional obstetric survey (1962-1964) there were certain special procedures necessary for the safe management of breech delivery. These procedures are:

1. The application of forceps to aftercoming head .
2. X-ray pelvimetry when, on clinical examination, the capacity of the maternal pelvis is thought to be suspected. Some believe it to be required in all primiparae and most multiparae.
3. Artifical rupture of membranes in breech presentation has been recommended on the grounds that since the infant is still, as a rule, small and placental function as yet unimpaired, the duration of labour is reduced, delivery is less complicated and the perinatal mortality in consequence lowered.
4. Usage of anaesthesia. General anaesthesia was considered more than other types, this may be accunted for by somewhat greater proportion of breech extractions which require full anaesthesia rather than local analgesia.
5. The use of episiotomy.

Elective repeated caesarean section is one of major factors responsible for the increase of caesarean section rate since 1970. Trial vaginal labour for patients with previous lower segment caesarean section with no

apparent indication was encouraged. There were no deaths associated with trial of labour, and maternal and foetal morbidity was negligible. This recommendation is advocated in patients with only one lower segment caesarean section. (Meier & Porreco, 1982).

Richard (1982) made a comparison of caesarean section morbidity in urban and rural hospitals in southern Colorado. This comparison was done as regards type of diet, day of discharge, elevations of tempreture, number of positive cultures taken from urine, lochia and wound, use of two or more ontibiotics, use of blood transfusions and incidence of major complications. Significant differences were found only in number of positive cultures and use of antiblotics, which occured more frequently in rural hospitals. The results show little difference in maternal and paediatric morbidity rate between urban and rural hospitals.

In Toronto, Canada, Hawrylyshyn, et al., (1981) denoted that the infection rates for endometritis according to the type of delivery were: vaginal, 3.6%, elective repeated caesarean section, 6.0%, nonurgent primary caesarean section, 22.2%; and emergency caesarean section, 38.4%; Isolated bacteria were most frequently staphylococcus aureus. Duration of labour, number of preoperative vaginal examinations, time of rupture membranes perior to delivery and postoperative anaemia were the most important risky factors associated with endometritis after primary caesarean section, recently, investigators have reported rates of febrile morbidity after caesarean section that ranged from 13% to 59%, prophylactic antibiotic can reduce the incidence of febrile morbidity after caesarean section. Some authors recommended prophylactic antibiotics for

all patients, whereas others restrict their use to selected highrisk patients.

Monif and Hempling in Florida (1981). Disscused the response of patients with post-caesarean section endometritis to antibiotic therapy. Postpartum endometritis following caesarean section is one of the difficult therapeutic problems in obstetrics.

Among 100 patients, seventy-eight exhibited an acceptable clinical response to ampicillin and clindamycin. One patient developed a wound infection, which responded to drainage. The remaining twinty-one patients responded to-addition of aminoglycoside. No patient developed pelvic abscess or septic thrombophlebitis.

The use of prophylactic antibiotics to reduce post-caesarean section febrile morbidity has been advocated since 1968. Although this approach has actual disadvantages, all studies found a reduction in febrile morbidity when prophylactic antibiotic were used. The study compared a long course of ampicillin (3 days) to short course (3 doses). The long course of prophylactic antibiotics reduced febrile morbidity better than the short course, and hospital stay was also significantly reduced by long course of antibiotics more than by short course of antibiotics; (Elliot et al., 1982).

Caesarean section was the treatment of choice in cases of occipto-posterior associated with other problems, such as, prolapsed cord, and foetal distress. Also there is great tendency towards more caesarean

section and less difficult forecps deliveries in developed countries to minimize risk of cerebral damage which may reach to 7.3% (Dewhurst, 1965):

In New York, Loucopoulos and Jewelwicz, (1982) revealed that bed rest does not increase the gestational age among the multifoetal pregnancies, but improve the foetal outcome. From 1965 to 1981, there were 56,266 deliveries at the Sloane Hospital for women. Included in this number were 27 sets of triplets, seven sets of quadruplets, and one set of quintuplets, the incidence was 1:2.082 and 1:56.266, respectively. Administration of betamethasone as early as 25 to 26 weeks' gestation to enhance pulmonary maturity is recommended. Caesarean section is the best mode of delivery if the obstetrician is not confident enough with vaginal manouvers. The rate Caesarean section in management of multifetal pregnancies was 42%. Also an experienced medical and nursing staff is essential in successful management of multifoetal gestations.

The pregnancies with antepartum rupture of the membranes carries the risk of premature labour and infections. Varner and Galask (1981) denoted that about 5.2% of pregnancies with premature rupture of membranes developed amnionitis, 7.1% developed neonatal sepsis. The predominant

pathogen being the group B hemolytic streptococcus. A decrease in the incidence of respiratory distress syndrome and patent ductus arteriosus with progressive duration of membrane rupture was observed. Management recommendations for pregnancies complicated by premature rupture of the membranes must consider both the neonatal morbidity and mortality associated with premature delivery and infectious risks to the mother and foetus. The optimum management of premature rupture of membranes remains uncertain, some authers recommended immediate delivery, whereas others recommended prolonged observation to diminish the incidence of respiratory distress syndrome (R.D.S.) and other complications of prematurity.

In New Haven, Berkowitz, et al., (1982) revealed that management of women with premature rupture of membranes remains controversial.

Some authers have used a conservative approach of "watchfull waiting" until labour ensues or amnionitis becomes clinically evedent. Others have performed amniocentesis and delivered any foetus older than 28 weeks.

In United States Cates and Grimes (1981) found that deaths from second trimester abortions were mainly due to haemorrhage or sepsis. The death rate was influenced by race and gestational age. White women had lower death rate from surgical evacuation than women of other races. Surgical evacuation performed at 13 up to 15 weeks gestation was 3 times safer than these at 16 week or later.

In Georgia, Peterson, et al., (1981) mentioned that death from evacuation performed at 12 weeks gestation with local versus general anaesthesia was unknown, although complications of anaesthesia are now the most frequent cause of death from abortion.

In United States 36 women died of septic abortion through 1977 and most of them were due to infection after illegal abortions. The death from septic abortion was affected by gestational age, method and completness of abortion, and these risky factors can be greatly influenced by medical personnel; (Grimes, Cates and Selik, 1981).

Donaled, (1979) revealed that chances of post-partum haemorrhage can be reduced by good management of labour, specially the second stage which is of great importance. The uterus must be emptied of its content, this is the first principle of treatment. The brisk massage through the abdominal wall as well as ergometrine enjection should be rapidly done. Hayashi, Castello, and Noah (1981) discussed the effect of prostaglandin in treatment of postpartum haemorrhage due to uterine atony. Twinty patients's with sever postpartum haemorrhage due to uterine atony who were unresponsive to conventional therapy were treated with 0.25 mg intramuscular injection of (15-5)-15-methyl prostaglandin $F_{2\alpha}$ -tromethamine. A rapid and successful response was obtained in 18 patient's. Two patient's required surgical procedures to control bleeding.

In Taxas Gibbs and Blanco; (1981) denoted that most common infections during pregnancy were endometritis and chorio-amnionitis and caused mainly by streptococcus hemolyticus group B and entero-cocci. For all streptococcal genital infections the clinical presentation included early onset of fever, often with few localizing signs. Only one patient among 48 had a chronic debilitating disease. The maternal response to therapy was good with neither deaths nor episodes of septic shock.

Donald (1979) revealed that its possible for a pregnant woman with cardiac disease to emerge from the experience of childbirth without any degradation in her cardiac condition,and this should be the obstetricion's aim.

MacRae (1962) mentioned that incidence of cardiac disease in pregnancy varies from center to center and depends largely upon the degree of which minor cardiac lesions are registered. The incidence of cardiac disease at Queen charlotte's Hospital was 0.8% (?25 cases), and of these, 13 had congenital lesions, and in the remainder definite history of Rheumatic disease was obtained in 91.1%. There was great reduction in mortality of pregnant woman with heart disease, this is due to the increased care with which these cases are supervised. Antibiotics, too, have played their part. Atrial fibrillation complicating pregnancy still has a very high mortality, and because the risk of embolism occuring shortly after its onset, atrial fibrillation should be treated as medical emergency.

As regards the management, Donald (1979), mentioned that the cardiac grade should be decided, and treatment will depend upon the grade in which she is placed. Ample rest should be secured and exertion permitted only to a degree not producing dyspnoea. Cases in Grade I and II should have 1? hours in bed at night, and if possible 2 hours rest during middle of the day. Re-assessment of the patients grade is carried out between the 28th and 32nd week and any detetrioration should be reversed by complete bed rest befor labour. Cases of Grade I and II should be admitted to Hospital during last fortnight of pregnancy and any cardiac failure must be controlled before labour