# STUDY OF CASES OF SEPTIC ABORTION IN AIN SHAMS UNIVERSITY HOSPITAL

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*OBSTETRICS AND GYNAECOLOGY*



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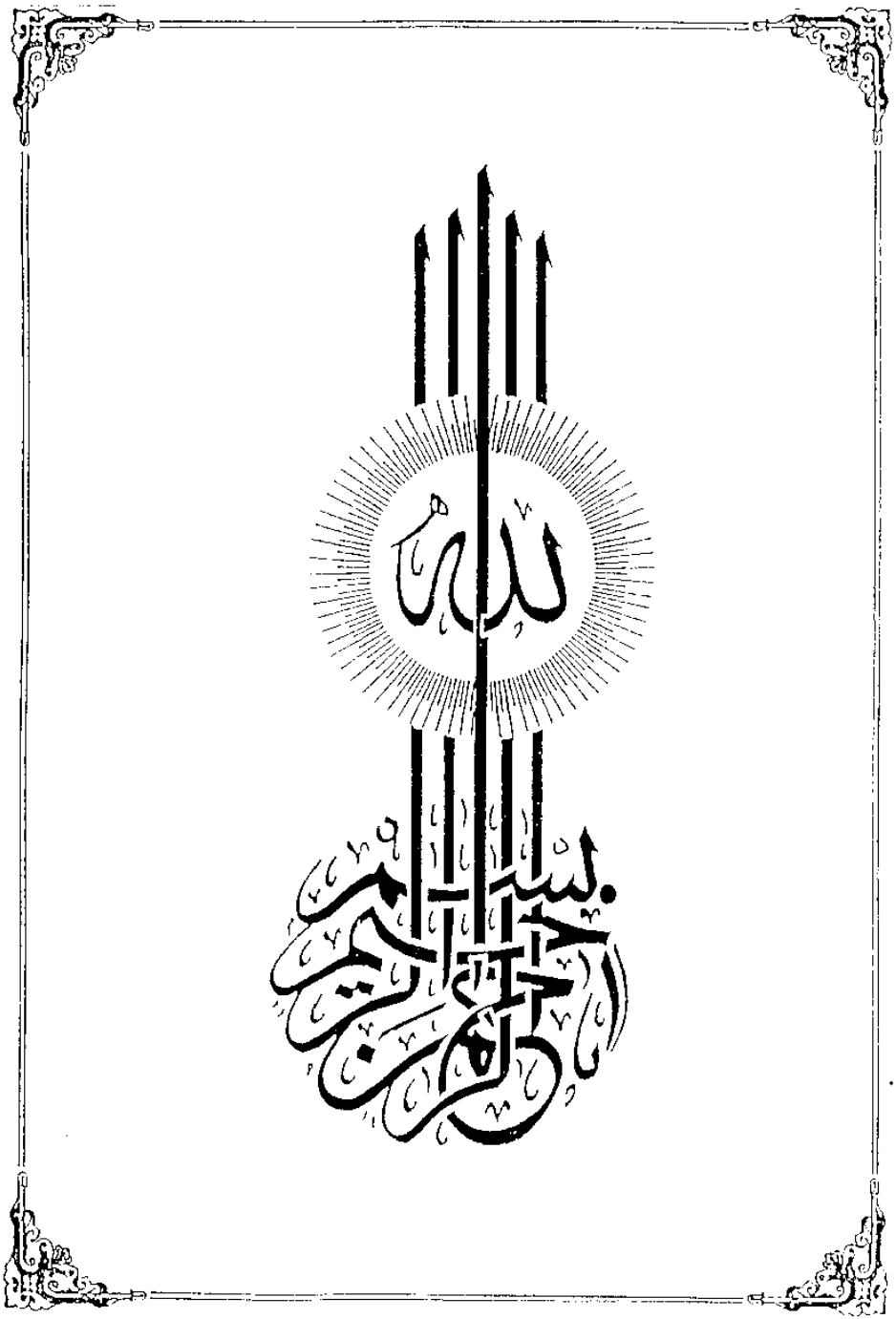

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## Aim of The Work

Septic abortion is one of the major causes for maternal mortality and morbidity. It remains an important national problem.

This can be seen from the number of the patients admitted to our hospital with septic abortion.

This work includes a review for the different aspects of the problem and a clinical evaluation for the cases of septic abortion admitted to Ain Shams University Hospital during a 5 year period from 1979 to 1983.

# Review of Literature

# HISTORICAL REVIEW

*If the womb becomes ulcerated both blood and pus are discharged. There is a strong adour. acute pains in the loins groins and lower parts of the abdomen. The pains gradually ascend from the flanks to the sides and shoulder blades. sometimes they reach the collar bones. and there is intense headache and delirium. After a time the woman swells and grows weak, fiants and is feverous and Chilly. Her legs specially become swollen.*

*The disease occurs after a woman aborts; the foetus is found to be putrid, and the lochia do not appear and the womb is very hot to touch.*

LATE HIPPOCRATIC WRITINGS. Adams (1939).

The word ABORTION is derived from the Latin word ABORIRI meaning "to detach from its proper site". This term was lost during the middle ages and venacular forms developed such as "Miscarriage" in England. Although the term miscarriage was used synonymously with abortion for a time, it began to take on different meanings in the 20th. Century. Abortion was used to refer to early expulsions. and miscarriage to the same event in the second trimester. Criminal abortion is a relatively modern term because historically, the induction of

abortion was of no legal concern to the governments of most areas (Schwarz 1968).

In the Medical History of contraceptions, Himes (1936) credits the earliest recording of an abortifacient to an ancient Chinese medical work 2737 - 2696 B.C.

The Ebers Papyrus approximately 1550 B.C. appeared describing methods of inducing abortion. (Schwarz 1968).

Abortions were rather freely performed in Imperial Rome by midwives and to lesser extent by Greek physicians in ancient Greece where much attention was devoted to the subject of abortion and philosophers discussed it in length. (Schwarz 1968).

In the first and second centuries A.D., Souranous, probably the greatest obstetrician Gynaecologist of that era, wrote the book: Diseases of Women; in this work he commented that abortion was easiest to produce in the third month, but that metritis and even convulsions (tetanus) might occur as complications (Schwaz, 1968).

With the advent of the Christian era the atitude developed slowly that once a woman was pregnant (owing to the will of God) abortion should not be done regardless of the economic aspects or danger to the health. From such beliefs ultimately developed the concept of criminal abortion. Guy Patin, Dean of faculty of Medicine in Paris, wrote in 1650 about the large group of

male and female abortionists who were constantly busy destroying the evidence of the sexual irregularities of the French aristocracy (Schwarz 1968).

Taussing (1936) in reviewing abortion practices among primitive people found that almost every tribe had some method of producing abortion varing from oral agents to abdominal trauma to the placement of foreign bodies.

According to the English law abortion is defined as "the termination of pregnancy before the 28th. week i.e. before the foetus is viable". Viability means that the foetus is capable of maintaining an independent existance and is achieved by the seventh calender month (28 weeks gestation period), after that time the process is named labour. (Williams 1980).

In Egypt, induced abortion is prohibited by law (unless performed for medical reasons). Abortion is illegally induced by some , primarily for large family size and birth spacing (Foda 1971).

Although its definition varies from state to state, criminal abortion implies an abortion either attempted or produced contrary to applicable laws (Hordern 1971).

The universality of the problem of induced abortion has been illustrated by a review of its history. In fact it is a problem as old as civilization. Its sequelae

have been and continue to be not only medical but also social, political. moral, and economic problems as well. (Schwarz 1968).

## SCOPE OF THE PROBLEM

In recent years, the problem of septic abortion and its management have received an increasing attention. The obstetric literature is becoming replete with reports and reviews on this subject. Two factors appear to be motivating this interest. The first is that septic abortion has become a leading cause of maternal deaths (Neuwirth and Friedman 1963). They showed that at Sloane Hospital, over five years. the yearly incidence of patients admitted with septic abortion had doubled and this disease had become a significant cause of maternal mortality.

Andriole (1975) estimated 5000 maternal deaths per year because of septic abortion in many states. He said: soptic abortion is second only to haemorrhage in overall statistics for maternal mortality in United States.

Grimes et al., (1981) showed that 36 women in the United States died of septic abortion in 1975 through 1977. The respective estimated death-to-case

rates for septic abortion are 0 4 and 0 6 deaths per 100,000 legal and spontaneous abortions respectively.

Unmarried teenagers who undergo incomplete abortion at 16 weeks gestation or more by intrauterine placement of foreign body appear to have the highest risk of deaths from infection after illegal abortion (Grimes et al., 1981).

The second factor of the expanding interest in septic abortion is related to the more important problem of septic shock. The syndrome of endotoxic shock has been given much experimental and clinical attention recently. Obstetricians were initially adressed to this problem by Studdiford and Douglas (1956) who described the clinical course and pathologic findings of placental bacteraemia

Weil and Shubin (1967) Santamarina and Smith (1970) showed that septic shock was one of the most serious complications of septic abortion occured in 1 of every 4 patients with incomplete abortions and approximately 17% of septic abortions are complicated by septic shock.

## INDIGENOUS GENITAL MICROFLORA

The indigenous flora may be defined as characteristic but varied group of organisms that colonize a given area of a host without causing a disease.(Galask et al., 1976). They also said an additional characteristic of indigenous flora that should be discussed is the quantitative aspect. Not only do certain tissues show a characteristic pattern of colonization with respect to species present, but also the density of the bacterial population occurs with characteristic value.

So, the important role of prophylactically administrated antibiotics in reducing the postoperative infections morbidity may not be the eradication of offending species but the reduction of their number to levels with which the host is better able to cope (Galask et. el., 1976). They added: also the quantitative bacteriology may be particularly sensitive means for demonestrating the influence of various extrensic factors upon genital microflora.

Composition of indigenous Genital microflora:-

It is difficult to say What is the normal flora Perhaps the main thing to be learned after reading several papers is that the flora that has been reported as normal depends on:

1- the population of women studied (pregnant. nonpregnant postmenopausal, indigent).

2- the area of the genital tract studied (vagina. cervix. uterus).

3- the culture techniques. isolation and identification methods utelized by the researches, this is specially true, when anaerobic bacteria are concerned.(Galask et al., 1976).

Cervical - Vaginal Flora:-

Hurley (1974), Morris et al., (1967) and Ohm et al., (1975) studied the indigenous vaginal flora and the following tables summrize the results of their studies.

TABLE 1. Aerobic and Facultative Indigenous Flora.

| No. of women studied | 291 | 280 | 100 |
|---|---|---|---|
| Source | Morris 1967 | Hurley 1974 | Ohm 1975 |
| Organisms | % of Positive cultures | | |
| Lactobacilli | 49.1 | 81.8 | 75 |
| Diphtheroid | 21.3 | 83.4 | 38 |
| Staphylococcus epidermidis | 37.3 | 66.1 | 41 |
| Staphylococcus aureus | 2.7 | 4 6 | 0 |
| Alpha-hemolytic streptococci | N.R. | N.R. | 17 |
| Beta-hemolytic streptococci | 10.9 | 9.2 | 22 |
| Nonhemolytic streptococci | 18.2 | 4.3 | 33 |
| Group D streptococci | 9.6 | 41.4 | 36 |
| Escherichia coli | 5.8 | 19.3 | 28 |

N.R. = Not Reported.

TABLE 2. Anaerobic Indigenous Flora

| No. of women studied | 291 | 280 | 100 |
|---|---|---|---|
| Source | Morris 1967 | Hurely 1974 | Ohm 1975 |
| Organisms | % of Positive culture | | |
| Bacteroides fragilis | NR | NR | 4 |
| Bacteroides sp. | 1.0 | 5.4 | 12 |
| Fusobacterium | NR | NR | 7 |
| Peptococcus Sp | NR | NR | 60 |
| Peptostreptococcus Sp | 4.8* | 21.7* | 39 |
| Clostridium Sp. | NR | NR | 6 |
| Bifidobacterium Sp. | NR | NR | 0 |
| Veillonella Sp. | NR | NR | 11 |
| Eubacterium Sp. | NR | NR | 7 |

NR = Not Reported

* = Reported as anaerobic streptococci

It seems that the anaerobic techniques that have been used were of questionable value for isolation and correct identification of anaerobes. Therefore while Ohm et al., (1975) found that of the anaerobes the gram-positive cocci were the most common isolates Gorbach and associates (1973) reported bacteroid species as the most common.