

SEPTIC ABORTIONS—5 YEARS REVIEW

by

V. PADUBIDRI,* M.D., M.R.C.O.G.

and

B. G. KOTWANI,** M.D., F.R.C.O.G.

The mortality survey all over India has shown a definite decline in the maternal mortality in recent years. However, a parallel decline in deaths due to septic abortion is not observed. A breakthrough which was expected and hoped for, with the introduction of the new Abortion Act in 1972, has failed to show any appreciable impact on reduction of maternal deaths caused by septic abortion.

The authors decided to study the

pattern of maternal deaths due to septic abortion from 1973-77 and to compare the results with those obtained during the years before the new Abortion Act. The avoidable factors have been evaluated and the measures to avoid these deaths are also discussed.

Material and Methods

Table I shows the number of deliveries, spontaneous abortions, induced abortions,

TABLE I
Incidence of Septic Abortions in L.N.J.P. Hospital Year 1973-1977

| | 1973 | 1974 | 1975 | 1976 | 1977 | Total |
|--|----------|----------|----------|----------|----------|----------|
| Deliveries | 2557 | 2432 | 2453 | 2292 | 2338 | 12,072 |
| M.T.P. | 979 | 1510 | 1450 | 1232 | 1247 | 6,418 |
| Spontaneous abortions | 463 | 569 | 720 | 486 | 599 | 2,837 |
| Septic abortion | 32 | 44 | 44 | 32 | 38 | 190 |
| Per cent of septic abortions amongst spontaneous abortions | 6.9% | 7.7 | 6.1 | 6.5 | 6.3 | 6.6 |
| Deaths due to septic abortions | 4 | 3 | 3 | 5 | 2 | 17 |
| Maternal Mortality due to septic abortion | 15 | 10 | 20 | 16 | 20 | 81 |
| Total Obst. deaths | 1.5/1000 | 1.2/1000 | 1.2/1000 | 2.2/1000 | 0.9/1000 | 1.4/1000 |

*Asst. Professor.

**Prof. & Head.

Dept. of Obst. & Gynec., Maulana Azad Med. College, New Delhi.

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and septic abortions for the year 1973-77. The total maternal deaths including septic abortions were 81 and deaths due to septic abortion alone were 17. The maternal mortality including abortion

was therefore 6.4/1000 which is lower than the maternal mortality for the year 1962-69 in the same hospital which was 8.4/1000.

The septic abortions accounted for 6.6% of all spontaneous abortions during 1973-77. The death rate due to septic abortions has remained more or less constant (1.4/1000) during the last 5 years. Whereas in 1962-69, septic abortions were responsible for 23% of all maternal deaths, in 1973-77 it accounted for 21% of all maternal deaths despite the free MTP services in the country.

Forty or 21% of septic abortions came from rural population and only 19 or 10% were unmarried. Majority of cases were married and belonged to urban population. Although 54% of these women confessed to the deliberate interference by dais (including 2 cases of MTP done outside), the clinical findings highly suggested that most of them had been tampered by untrained personnel before admission.

Seventy-eight per cent of these women were below the age of 30 and 39.4% had atleast 3 children.

Table II presents the symptoms of the patients at the time of admission. There

were 12 cases of generalised peritonitis, 158 cases of pelvic peritonitis, 60 cases had pelvic inflammatory masses, 2 cases of tetanus, 2 cases of endotoxic shock and 2 cases of uraemia. The uterus was perforated in 5 cases.

On admission the following investigations were done as a routine:

(1) Haemoglobin, total and differential white cell count.

(2) Bleeding time, clotting time, clot retraction time.

(3) Blood culture, urine culture, high vaginal, swab culture.

(4) Blood urea, electrolytes.

Thirty-eight women had haemoglobin less than 9 gms%. Blood culture was positive in 22 cases (E. Coli 10, Staphylococcal infection in 2, Klebsilla in 7 and Pseudomonas pyocynous in 3).

High vaginal swab culture showed growth in 116 cases. (Staphylococcal in 10, E. Coli in 61, klebsilla in 20, pneumococcus in 5, proteous in 1, streptococcal faecalis in 14 and pseudomonas in 5). Most of our patients were treated conservatively with antibiotics, intravenous fluid, analgesics and blood transfusion if required. Surgical intervention was

TABLE II

Features

| | |
|---------------------------------------|-------------------------------------|
| 1. History of interference | 102 (2 cases with MTP done outside) |
| | 53.7% |
| 2. Pain, fever and lump | 10 |
| 3. Pain and fever | 96 |
| 4. Pain and lump | 4 |
| 5. Fever and lump | 2 |
| 6. Pain | 48 |
| 7. Fever | 14 |
| 8. Tetanus | 2 |
| 9. Unconscious (shock) | 2 |
| 10. Vaginal bleeding and amenorrhoea | 4 |
| 11. Vaginal discharge and amenorrhoea | 8 |
| Total | 190 |

necessary for pyoperitoneum, uterine perforation, bowel injury and uterine bleeding. Curettage was required for incomplete abortion in 17 cases, evacuation of uterus for vaginal bleeding in 25 cases, laparotomy and drainage of pus in 5 cases, and hysterectomy for perforation of the uterus in 5 cases. The minimal hospital stay was 5 hours and maximal 66 days with an average of 9.3 days.

Discussion

Despite the implementation of the new MTP Act and the performance of a large number of induced abortions, the incidence of septic abortion is as much as 6.6% of all spontaneous abortions in our hospital. There is hardly any decline in the maternal deaths due to septic abor-

tion, a hope which was earlier expressed by Konar *et al* (1973) and Bhaskar Rao and Malika (1977). As much as 21% of our maternal obstetric deaths between 1973-77 were due to septic abortions. Phillips and Ghouse (1976) too observed that 9.1% of all abortions were septic, and they accounted for 20.1% of all maternal deaths. Heera and Das (1973) found that 22.2% of maternal deaths were due to septic abortion. Bhaskar Rao and Malika (1977) quoted that one fourth of all maternal deaths were caused by criminal abortion. Thus the reports all over the country show that 20-25% of all maternal deaths are caused by septic abortion.

There were 17 deaths in the present series. The causes of death are shown in Table III. 23.5% of deaths were due to

TABLE III
Deaths Due to Septic Abortions

| Diagnosis | No. of Deaths | Treatment | Hospital stay |
|--|---------------|---------------------------------|---|
| 1. Generalised Peritonitis | 4 | Laparotomy done and pus drained | 7 days 5 hours 14 days 19 days |
| 2. Septicaemia | 4 | Conservative | 7 days 28 days 1 day 4 days |
| 3. Uraemia | 2 | Conservative | 24 hours 8 hours |
| 4. Endotoxic Shock | 2 | Conservative | 35 hours 15 hours |
| 5. Uterine perforation with peritonitis | 2 | Hysterectomy | 8 days 4 days |
| 6. Pelvic abscess and pulmonary embolism | 1 | Posterior Colpotomy | 7 days |
| 7. Tetanus | 2 | Conservative | 3 days 6 days |

septicaemia, and similar percentage due to generalised peritonitis. Two died of endotoxic shock and two died of tetanus (12% each). There were 3 unmarried girls in this group. The youngest patient was 15 and the oldest 40. This woman of 40 was 14th gravida.

Konar *et al* (1973) reported that 11% of deaths in criminal abortions were due to septicaemia, 10% due to peritonitis and 9% due to renal failure. Only 4% died of haemorrhage. Webster in 1970 reported that in Chicago sepsis was responsible for death in 39% of septic abortion.

Bhaskar Rao and Malika (1977) found that 73% of deaths due to septic abortion in his series were due to endotoxic shock.

Whereas Konar *et al* (1973) found 9% deaths were attributed to renal failure, Issac and Hemlata in 1976 found renal failure occurred in 75% of all deaths.

Rajasekharan and Vijaya (1973) quoted that 5.8% of all abortions were septic and only 48% admitted to interference by dais. In his series, 9.5% of deaths from septic abortion were due to endotoxic shock and 75% died of sepsis; 46.6% had developed general peritonitis, 53.3% had pelvic peritonitis and 2.5% had tubo-ovarian masses.

The present study shows that majority of women in the series were married (90%) and were between 21 to 30 years of age (78%) and 40% were para 3 and above. It is distressing that our women should prefer induced abortion as a means of family planning instead of using simple and safer methods of contraceptive techniques. There is ever increasing number of induced abortions since the MTP Act, which should not be so if women practice family planning. What is more surprising is that 79% of septic ab-

ortions were from urban population. On the other hand, it is quite possible that many deaths due to septic abortion in rural areas go unnoticed as they are not brought to the hospital even when serious. These young women need to be educated in family welfare and also should be well informed about the free MTP services that are carried out under aseptic precautions in general hospitals. We had not a single death amongst MTPs done in our hospital.

In view of the persistent high maternal deaths due to septic abortion as reported all over the country, the present MTP services need to be re-apprised. The MTP services at present are restricted to big hospitals in the cities and the doctors at the periphery are not well trained. This is obvious from the 2 deaths which followed induced abortions done outside by doctors. The task force should train more doctors in this field. It is also felt that some gynaecologists who hold a rigid view on termination of unwanted pregnancies should adopt a more liberalised attitude if the deaths due to septic abortion have to be eliminated. A wider publicity regarding availability of MTP services amongst the unprivileged group should also go a long way in reducing maternal mortality and morbidity associated with septic abortions.

It is found that earlier in pregnancy a termination is done, the safer are the results. From this view point, menstrual regulation holds a promise. It can be done without any danger of uterine perforation and sepsis by even a less trained medical personnel in primary health centres.

Menstrual regulation safely performed might bring about the desired goal of MTP Act of reducing deaths due to septic abortion in our country.

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Group I patients were 20 in number, Group II 15 and Group III 10. The total number of patients was 45. The age range was 18 to 35 years. The majority of patients were from the lower socio-economic class. The patients were referred to the hospital from various sources. The patients were divided into three groups based on the type of abortion. Group I patients had a history of spontaneous abortion. Group II patients had a history of induced abortion. Group III patients had a history of missed abortion. The patients were followed up for a period of 6 months. The results of the study are as follows:

The results of the study are as follows: The overall incidence of spetic abortions was 12.5%. The incidence was higher in Group I patients (15%) and lower in Group II (8%) and Group III (5%). The patients in Group I had a higher incidence of complications such as sepsis, shock and death. The patients in Group II had a lower incidence of complications. The patients in Group III had a very low incidence of complications. The results of the study are as follows:

TABLE I

| Group | No. of Patients | No. of Spetic Abortions | Percentage |
|-----------|-----------------|-------------------------|------------|
| Group I | 20 | 3 | 15% |
| Group II | 15 | 1 | 8% |
| Group III | 10 | 0 | 0% |
| Total | 45 | 4 | 12.5% |

The study deals with 3 groups of patients who were admitted to L.N.J.P.N. Hospital. The patients were followed up for a period of 6 months. The results of the study are as follows: