SEPTIC ABORTION BEFORE AND AFTER THE MEDICAL TERMINATION OF PREGNANCY ACT

by

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Introduction

Septic abortion is an important medico-social problem. Being a reflection of social inadequacies it is on occasions associated with interference and delay in seeking medical aid is motivated by the desire for secrecy with repercussion in severity. In recent years, septic abortion has received increasing attention as it is the important cause of maternal mortality and morbidity all over the world. Intensive medical, social and ecologial studies are necessary to get into the depth of such cases.

All cases of septic abortion during the years 1970 to 1975 i.e. few years preceding and few years after the Abortion Bill, are being analysed. The data will help us to compare the results in two periods —pre- and post-legislation era and the impact of the Abortion Law on septic abortion.

Abortion Bill was implemented in 1972 April, but there were very few M.T.P. in 1972. So for practical purpose in the study the period 1970 to 1972 was taken as pre-legislation period and 73-75 as post-legislation period.

Incidence

TABLE I
Year-wise Incidence of Septic Abortion

	Abortion	Septic abortion	Incidence %	Two periods
				1970-1972
1970	753	63	8.3	Total abortion = 2242.
1971	761	67	8.9	Septic abortions = 202
1972	728	72	9.9	Incidence 9%
				1973-1975
1973	920	97	10.5	Total abortions = 3182
1974	987	105	10.6	Septic abortions = 337
1975	1275	135	10.6	Incidence = 10.59%
Total	5424	539	9.9%	

During the six year period there were 539 cases of septic abortion out of 5424 cases of abortion admitted in N.R.S. Medical College Hospital, Calcutta, giving an incidence of septic abortion as

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9.9%. It will be seen from Table I that the incidence of septic abortion among all abortions has increased in each successive year. The incidence was 8.3% in 1969 and 10.6% in 1975. This rise has occurred inspite of the implementation of Abortion Law in 1972. Knapp *et al* (1966) found the incidence as 5.8%. The incidence of the same as given by other authors varies from 1 to 11 per cent.

Age

Percentage of abortion upto 20 years has remained same in the two periods. Abortion in age group above 31 years has shown a fall in post-legislation period, whereas abortion in age group from 21 to 30 years has shown a significant rise (Table 1).

Gravidity

So far as the gravidity is concerned no gravida is bar from this complication. The incidence of septic abortion in first pregnancy has increased in post-legislation period. The reduction of abortion with parity 5 + is also striking. Parity 5 + accounts for only 32% septic abortion in post-legislation against 48.6% in pre-legislation period. This is attributed to consciousness of women about large family in high parity group (Table III).

Social Status

98% cases came from low socio-economic class.

There is a rise of incidence of grade III cases in the post-legislation period. The incidence of grade III infection was 12.4% in 70-72 years group, whereas it became 15.7% in the period 73-75 years (Table IV).

In the series of Pinto Rosario (1970) incidence of Grade III cases was 11.2% per cent.

TABLE II

Distributions of Cases According to Age Groups

Period	Upto 20 Years	21-30 Years	31-49 Years	Above 40 Years	Total
1970-72	40 (19.8%)	104 (51.4%)	55 (27.4%)	3 (1.4%)	202 (100%)
1973-75	63 (18.7%)	205 (60.8%)	67 (19.9%)	2 (0.6%)	337 (100%)
Total	103	309	122	5	539

TABLE III

Distribution of Cases According to Parity

Period	1st Pregnancy	P2-4	Para 5 and above	Total
1970-72	13 (6.4%)	91 (45%)	98 (48.6%)	202
1973-75	43 (12.8%)	186 (55.2%)	108 (32%)	337

TABLE IV
Grades of Infection

Period	Grade I	Grade II	Grade III	Total
1970-72	128 (63.4%)	49 (24.2%)	25 (12.4%)	202 (100%)
1973-75	203 (60.3%)	81 (24%)	53 (15.7%)	337 (100%)
from 70-75	331 (61.4%)	130 (24.1%)	78 (14.5%)	539 (100%)

History of Interference

A history of interference was given by 203 patients (37.6%). The commonest mode chosen for interference was the introduction of a stick. The other methods were use of sound, dilators, injection of soap water and use of ayurvedic drugs. A history of interference showed on categorising a rising incidence in post-legislation period.

Complication

The commonest complication was hypotension. It was present in 59 cases. Septic shock was present in 37 cases (6.8%), 12 of these were associated with general or pelvic peritonitis. Peritonitis occurred in 37 cases. T.O. mass and pelvic cellulitis and pelvic abscess was present in 13 cases. In most series 1-4% of septic abortion cases are said to develop septic shock. In this series septic shock was present in 37 cases (Table V). Rajasekharan and Vijaya (1973) found septic shock in 9.5% cases.

Management

Management of septic abortion is the most controversial problem. While there is general agreement about medical and

TABLE V
Complications

Complications			No. of cases
I. Hypotension			
A. Haemorrhagic hypotension		22	59
B. Septic shock........		37	
(a) Only hypotension	25		
(b) Hypotensive peritonitis	12		
II. Peritonitis			37
III. T. O. mass, pelvic cellulitis, pelvic abscess			13
IV. Oliguria			4
V. Hyperpyrexia			1
VI. Jaundice			1
VII. Coagulation defect			2
VIII. Tetanus			4
IX. Gas gangrene			2
X. Palm oedema			2
Total			124

TABLE VI
Management

Type of treatment	Grade I	Grade II	Grade III	Total
Conservative	90	65	58	213
Evacuation digital or with sponge forceps	119	62		181
D & C	105			105
Colpotomy		3	1	4
Laparotomy			19	19
Patient left hospital against advice	17			17
Total	331	130	78	539

supportive therapy with blood, fluid, electolytes and massive antibiotic therapy, there is no uniformity of opinion regardin the timing of surgical intervention. Ian Donald (1969) Purandare (1967) believe that control of infection prior to currettage is a must and the patient must be afebrile for 12-24 hours prior to evacuation, unless there is uncontrolled bleeding. On the other hand authors like Schwartz (1968) and Speroff (1968) believe in early evacuation of the infected uterine contents after 12 hours of antibiotic therapy even if the patient is febrile. The advantages claimed are that hospital stay is reduced and the incidence of septic shock could be minimised.

In the present series, septic abortion cases were immediately started with antibiotic thrapy. Antibiotics of choice were chloromycetin and streptomycin. Some cases required tetracyclin and ampicillin. In cases of open os evacuation either digitally or with a sponge forceps was done within few hours. Dilatation and currettage was postponed till the patient was afebrile, unless it was imperative due to haemorrhage. On some occasion it was not possible to currette the patient in view of the low general condition. Cases who had complete abortion were exempted from evacuation. So far as the supportive therapy is concerned the majority of the cases required intravenous fluid, 81 cases required blood transfusion, 72 cases were put on hydrocortisone. Mephentin was given in 20 cases. Pitocin was administered in 24 cases of which 9 also had evacuation. Another controversial point is laparotomy in septic abortion. There may be uterine perforation leading to peritonitis or bowel injury. Peritonitis without apparent uterine injury or bowel pathology could be due to spread of infection from uterine cavity (Brian Little 1967). These instances adequately justify the scope of surgical intervention in cases of unresponsive hypotension or persistent abdominal distension complecating septic abortion.

In this series laparotomy was performed in 19 cases. Of these 19 cases, in 6 pus was found in the peritonial cavity and drainage of pus through the flanks was done. In 3 cases uterine perforation with pus in peristoneal cavity was found where repair of uterus with drainage of pus through flanks was done. In 7 cases hysterectomy was done, indication being perforation of uterus in 3 cases and pyometra in 4 cases. In 2 cases separation of loop of bowel was done and in one case hysterectomy with resection anastomosis of small intestine was done due to bowel injury (Table VI).

Mortality in Septic Abortion

During the period 1970 to 75 there

TABLE VII
Mortality

Years	No. of septic abortions	Mortality	Incidence
I. 1970-72	202	9	4.4%
II. 1973-75	337	24	7.1%
Total	539	33	6.1%

were 33 deaths out of 539 septic abortions giving an overall incidence of 6.1%. But when two periods are considered separately it is seen that in post-legislation period (73-75) mortality in septic abortion was 7.1% as against 4.4% mortality in the period 70-72 years.

Main causes of death were shock and peritonitis. Other cases being tetanus, gas gangrene oliguria, and pulmonary oedema. In the series of Rajasekharan mortality was 5.5% (Table VII).

Comments

It was believed that the Abortion Bill passed by the Parliament in 1972 April would be a step to prevent illegal abortion. But the present study shows that the incidence of septic abortion is rising inspite of the implementation of Abortion Law. Severity of infection and mortality rate are also rising. Jalnawala (1975) also said "there has been an increase in the number of septic abortions performed after Abortion Law". The reason may be that majority of the patients live in villages and most women either through ignorance or fear do not come to hospital for M.T.P. but become an easy prey to the quacks. Therefore, illegal abortions are performed and perhaps with liberalisation Act are performed more freely.

Study from East European Countries, where abortion laws have been liberalised, also suggest the trend of illegal abortions. There has been a striking increase in the number of legal abortions performed. But the expected corresponding decrease of illegal abortion has not occurred.

So there is a urgent need for educational effort towards the provision of knowledge in family planning. It is imperative that the unwanted pregnancy be initially be prevented, if we are to eliminate or atleast minimise septic abortions as a social evil and a source of maternal death. If every conception is by choice and not by chance then there will be no need for termination and no women will resort to illegal methods.

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References

1. Brian Little: Advances in Obstetrics and Gynaecology Vol. 1, the Williams & Wickins Company, 1967.
2. Donald, I.: Practical Obstetrics Problems LLOYD-LUKE Ltd., London 1969.
3. Jalnawala, S. F.: J. Obst. & Gynec. India. 25: 588, 1975.
4. Knapp, R. C., Platt, M. A. and Douglas,

R. G.: Obst. & Gynec. 15: 344, 1966.
5. Pinto Rosario, Y.: J. Obst. & Gynec. India. 20: 604, 1970.
6. Purandare, B. N.: Gynaecology and Obstetrics: 5th World Congress Edited by C. Wood. Butterworths, 1967.
7. Rajasekharan, N. and Vijaya, R.: J. Obst. & Gynec. India. 23: 47, 1973.
8. Schwartez, R. H.: "Septic abortion". J. B. Lippincott Company 1968, P. 68.
9. Speroff, L.: Am. J. Obst. & Gynec. 95: 139, 1968.