

CHANGING TRENDS IN SEPTIC ABORTION

HIRALAL KONAR

SUMMARY

A comparative review of septic abortion cases had been made since septic abortion was an important cause of maternal death (15.6%). Doctors were found to be involved in 75% of the cases. Severity of injury was maximum, as in 25% cases, we could see the gut and/or omentum hanging outside the introitus. Surgical intervention was done with 48 hours of admission in 81% of the cases. Selective and timely performed surgical management had shown distinct advantage to reduce the maternal mortality from 25% (1976) to 6.2% (1990). Training in the family planning clinic was felt essential for all residency programme. However eradication of mass illiteracy through formal basic teaching should be given highest priority.

INTRODUCTION :

There are more maternal deaths in India in one day than there are in all developed countries in one month (Harison - 1989). This hospital in eastern India, the largest of its kind, the maternal death rate is 750/100,000 total births. Septic abortion is an important cause of maternal death and is responsible for 15.6% of the total deaths for the year 1989. A perspective over this individual cause of maternal death is being made so that changes may be noticed and appropriate action could be taken to improve it.

MATERIAL :

The material was from the prospective study of septic abortion cases admitted at N.R.S. Medical

College and concerned the period Jan. to June 1990. During this period 641 abortion cases were admitted out of which 39 were septic abortions giving a frequency of 6.2% (Table - I).

TABLE - I

Changing Trends

Year	Abortion	Septic	Grade - III
1976	1966	170 (10.2)	28 (16.5)
1978	4596	478 (10.4)	84 (17.6)
1981	1110	93 (8.4)	24 (25.8)
Present Series	641	39 (6.2)	18 (46)

(Figures within parenthesis indicate percentage)

Dept. of Obst. & Gyn. N.R.S. Medical College & Hospital
Calcutta - 700 014.

Accepted for Publication on 31/10/91

Laparotomy was done in 16 cases. The frequency of laparotomy in relation to total septic abortion cases was 41% (Table - II). It is an advantage that

TABLE - II

Laparotomy in Septic Abortion

Year	Septic Abortion	Laparotomy
1976	170	8 (4.7)
1978	478	28 (5.8)
1981	93	16 (17.2)
Present Series	39	16 (41.0)

review of septic abortion cases had been made from time to time (Chakraborty et al - 1976, Ganguly et al - 1978 and Dutta and Roy - 1981) from this institute. So a comparative analysis had been made to note the changing trends in relation to incidence, persons involved, severity of pathology, patients presentation, decision for active intervention, type of surgery required and finally the outcome (maternal mortality).

PATIENT CHARACTERISTICS :

In the earlier three studies the patient of Grade III septic abortions were almost identical. Evidence of generalised peritonitis with or without hypotension were the predominant manifestations. But in the present study we faced some difficulties to categorise them into grades. The patient characteristics were :

- i. 15 (94%) patients reported to the hospital early
- ii. Initial course of antibiotics had been started outside before reaching the hospital in 14 (88%).
- iii. In 4 (25%) cases we could see the gut and/or omentum hanging outside the introitus.

iv. Persons involved were doctors in 12 (75%) cases.

v. Typical features of endotoxic shock, Jaundice, renal failure, D.I.C. were not present in 15 cases (94%).

However severity of injury was maximum in this category.

THERAPY :

Following admission management consisted of (i) Monitoring of the patient's condition (ii) Routine investigations including bacteriological study (iii) Intensive medical therapy (iv) Active surgical intervention as on selection discussed later on. Antimicrobial agents commonly included parenteral Gentamycin, Ampicillin, Metronidazole. Supportive measures with fluid, electrolytes, Colloids, blood transfusion and hydrocortisone were carried out as felt necessary. Antimicrobial agents were selected on the basis of organisms obtained on culture. In the present study anaerobic culture was not done. However clinical evidence that supported the presence of anaerobic organisms were (Sweet 1980) taken into consideration.

- i. Infection close to mucosal surfaces.
- ii. Fecal odour in the exudate.
- iii. Gas in the exudate.
- iv. No growth on ordinary culture
- v. Presence of septic thrombophlebitis

The above mentioned combination of antimicrobial agents proved to be most effective, cheap and readily available from the hospital. However in some cases we had to introduce the newer, potent broad spectrum agents depending the culture report.

Detailed analysis of 16 laparotomies had been presented. Pregnancy was confined to the first trimester in 10 cases. History of interferences was obtained in all the cases. Persons involved were doctors in 12 cases. In two cases place of interference was in the 'Haat'. Bowel injury ranging from avulsion, gangrenous change (fig. 1) and injury to the mesentery in 6 cases, injury limited to the serous and muscle coat in 2 cases



Fig. 1 : Segment of small bowel dragged down through the introitus undergoing gangrenous change. Site of injury shown by Allis's tissue forceps.

were noted. Uterine injury was noted at various places. Injury to the fundus extending upto cornu (fig. 2) on one or either side in 3 cases, injury to

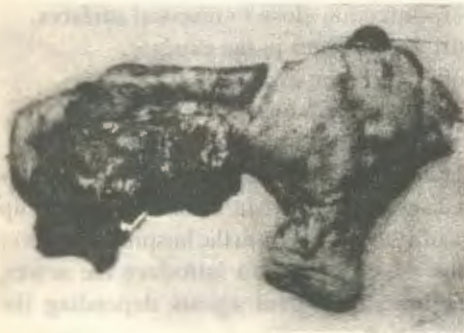


Fig. 2 : Injury to the uterus at the post. wall of the body and fundus. Left sided tube and ovary also infected.

the cervix extending laterally upto broad ligament with laceration in 6 cases and injury involving the uterine artery with formation of massive broad ligament haematoma in 2 cases were met

with (Table - IV). In 3 cases segment of small bowel was dragged down through the introitus and in one case a portion of omentum was pulled down. In all the cases a short period of conservative management to make the patient fit for surgery was done. For 81% of cases laparotomy was done within 48 hours of admission of which 70% were done within 24 hours (Table - III).

TABLE - III

Admission - Surgery Interval

Year	< 48 Hours	48 Hours
1976	3 (37.5)	5 (62.5)
1978	15 (53.6)	13 (46.4)
1981	14 (87.5)	2 (12.5)
Present Series	13 (81.3)	3 (18.7)

TABLE - IV

Pathology Detected During Laparotomy

Year	Peritonitis with Pus	Uterine Injury	Bowel Injury
1976	5 (62.5)	3 (37.5)	0
1978	19 (67.8)	8 (28.6)	1 (3.6)
1981	7 (43.8)	6 (37.5)	3 (18.7)
Present	5 (31.3)	11 (68.75)	9 (50)

Drainage of pus in 5 cases, hysterectomy in 10 cases and gut surgery in 6 cases of which resection anastomosis of small bowel was done in 4 cases. Local repair of gut injury by one or two layer closure in 2 cases were done (Table - V).

TABLE - V

Type of Surgery

Year	Drainage of Pus	Repair Rent	Hysterectomy	Gut Surgery
1976	5 (62.5)	1 (12.5)	2 (25)	-
1978	11 (39.5)	3 (10.7)	13 (46.4)	1 (3.6)
1981	7 (43.8)	3 (18.7)	6 (37.5)	3 (18.7)
Present Series	5 (31.1)	1 (6.2)	10 (62.5)	6 (37.5)

TABLE - VI

Maternal Death Following Surgery

Year	No	Death
1976	8	2 (25)
1978	28	8 (28.6)
1981	16	2 (12.5)
Present Series	16	1 (6.2)

MORBIDITY :

This included post operative fever, wound infection, discharge and thrombophlebitis. Wound dehiscence in 3 cases that required resuturing. In none of the cases relaparotomy was done.

MORTALITY :

There was one post operative death after 6 hours of operation (Table - VI). Hysterectomy with resection anastomosis of the small gut was done. Patient died of septic shock. This patient reached hospital after two days of interference.

DISCUSSION :

The changing trends in the septic abortion

cases had been highlighted. The increasing prevalence of severe injury by illtrained doctors or midwives had made the objectives of M.T.P. law spoiled. Result of early laparotomy had been found superior than protracted conservative management. Guidelines that were followed for selection of cases for early laparotomy were

- i. Direct evidence of intra peritoneal injury (Gut or omentum outside the introitus).
- ii. Any suspicion of intra abdominal injury of foreign body on clinical examination or any such information from the doctor's note (in 2 cases) given with the patient.
- iii. Failure of clinical improvement following 24 hours of intensive management.

In the earlier studies colpotomy was performed as initial surgery to drain the pus but all the cases subsequently required laparotomy. In our opinion colpotomy or rectal incision to drain the pelvic abscess as a definitive procedure has very limited place because of multilocular nature of the abscess cavity which fails to drain completely. Another study (Rubinstein et al - 1976) had shown that one-third of all cases required subsequently laparotomy because of residual infection. However temporary alleviation of septic condition by colpotomy could be obtained.

Aggressive surgical management in the form of laparotomy and appropriate surgery had shown a distinct advantage over protracted conserva-

tive management (Chakraborty et al - 1976, Ganguly et al - 1978, Dutta Roy 1981). In the present study the significant reduction of maternal deaths is due to the timely surgical intervention with careful decision for extent of surgery. However the surgical skill, both the Gynaecologist, the General surgeon when required and the skilled anaesthetist are the important preliminary requisites.

In a vast analysis (Crebs - 1986) the incidence of intestinal injury in Gynaecological surgery had been shown 0.3%. In 75% of cases the small intestine is the common site of injury. In this review, the current opinion is that Gynaecological resident should learn to perform the segmental resection anastomosis for repair of intestinal laceration. This is urgently felt when we are to work in odd circumstances where the help of surgical colleague is not readily available.

From the review of the subject "changing trends" what we could feel that such premature loss of life should be completely prevented by

correcting the defects in the existing health care system. Training in the family planning clinic is felt essential for all residency. And the eradication of mass illiteracy through universal basic teaching should be given the highest priority.

ACKNOWLEDGEMENT

The author wishes to thank Dr.M.Das, Superintendent, N.R.S.Medical College Hospital for utilising the hospital records.

REFERENCES :

1. Chakraborty B.N., Gun K.M., Das N.J., *Obstet. Gynaec. India*, 26 : 481 : 1976.
2. Crebs H.B. : *Am. J. OB-GYN* ; 155 : 509 : 1986.
3. Dutta D.C., Roy T.K. : *J. Obstet. Gynec. India* 31 : 738 : 1981.
4. Ganguly G., Chakraborty B.N., Das G.J., *Obstet. Gynec. India* 28 : 241 : 1978.
5. Harrison K.A. : *Brit J., Obstet. & Gynec.* 96 : 1 : 1989.
6. Rubenstein P.R., Mishell, D.R., Ledger W.J. : *Obstet. & Gynec* : 48 : 142 : 1946
7. Sweet R.L. : *Obstet & Gynaec. Annual* : 9 : 79 : 1980.

correcting the defects in the existing health care system. Training in the family planning clinic is felt essential for all residency. And the eradication of mass illiteracy through universal basic teaching should be given the highest priority.

ACKNOWLEDGEMENT

The author wishes to thank Dr.M.Das, Superintendent, N.R.S.Medical College Hospital for utilising the hospital records.

REFERENCES :

1. Chakraborty B.N., Gun K.M., Das N.J., *Obstet. Gynaec. India*, 26 : 481 : 1976.
2. Crebs H.B. : *Am. J. OB-GYN* ; 155 : 509 : 1986.
3. Dutta D.C., Roy T.K. : *J. Obstet. Gynec. India* 31 : 738 : 1981.
4. Ganguly G., Chakraborty B.N., Das G.J., *Obstet. Gynec. India* 28 : 241 : 1978.
5. Harrison K.A. : *Brit J., Obstet. & Gynec.* 96 : 1 : 1989.
6. Rubenstein P.R., Mishell, D.R., Ledger W.J. : *Obstet. & Gynec* : 48 : 142 : 1946
7. Sweet R.L. : *Obstet & Gynaec. Annual* : 9 : 79 : 1980.

Year	Number of Cases	Percentage
1976	1	100
1978	1	100
1981	1	100
Total Cases	3	100

MORTALITY :

This included post operative fever, wound infection, discharge and thrombophlebitis. Wound dehiscence in 3 cases that required re-suturing. In none of the cases laparotomy was done.

MORBIDITY :

There was one post operative death after 6 hours of operation (Table - VI). Hypotension with massive anaemia of the third day was done. Patient died of septal shock. The patient reached hospital after two days of involvement.

DISCUSSION :

The changing trends in the gynaecological