

PERITONEAL LAVAGE WITH METRONIDAZOLE, ANTIBIOTICS AND PLACENTAL EXTRACTS IN SEPTIC ABORTION

By

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SUMMARY

The problem of septic abortion is yet unsolved even when early laparotomy is done. A comparative clinical study has been done with sixty such cases between 'Laparotomy and drainage' and 'Laparotomy and lavage with metronidazole, antibiotics and placental extracts'. Though the results are better in the latter group, more study is to be done for its complete evaluation.

Introduction

Early laparotomy is the corner stone in the treatment of grade-III septic abortion (Shilotri, Pannat, 1986), yet it is not the final answer. Imperfect tissue perfusion is a relative barrier for the transport of therapeutic agents and despite proper serum level, it is inadequate to combat the infection (Saha, 1985) in these patients. The idea of this clinical study is to utilise the effects of these agents directly on bacterial pool, thus to avoid toxicity and over-use but to achieve better outcome.

Material and methods

The study comprises of sixty cases of grade-III septic abortion who showed evidence of pelvic or general peritonitis (Cavanagh and Rao, 1973). All these patients were picked up from septic ward of Krishnagar Sadar Hospital, Nadia, West-Bengal from January '78 to December '84. Appropriate resuscitative measures were taken with close watch to vital

functions. Laparotomy with or without preceded by evacuation of uterus was undertaken within 12-48 hours of admission. Pelvis was explored breaking all the loculi. Injuries were dealt with appropriate surgery. Two drains were put on two flanks using sterile plastic Ryles tubes, the proximal ends of which were put one at pouch of Douglas and the other at a suitable higher level. The other ends of the tubes were attached to a vacuum bag (sterile) which was changed every day for 3-5 days depending on the septic contents coming out. Post-operative supportive therapy was maintained till satisfactory improvement.

Grouping of the cases. Cases were divided into three groups for comparison and evaluation of treatment instituted to them.

Group I. Comprised of 20 cases who had only laparotomy and drainage.

Group II. Comprised of 20 cases who received 500 mg. of metronidazole and 80 mg. of Inj. Gentamycin intraperitoneally before closing the abdomen. The drainage tubes were kept closed for first six hours and were opened thereafter. The

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same doses of medicines were instilled through one tube next morning and both tubes were kept closed temporarily for six hours. The process was repeated for 3-5 days.

Group III. Comprised of 20 cases in whom 20 ml of placental extracts (Inj. placentrex/Texotone) were added to initial and daily intraperitoneal medication along with others as in Group II cases for 3-5 days.

Observation and Results

There was no death on operation table. Post-operative period was less stormy in groups II and III cases than in group I. Toxicity, tachycardia and abdominal distension improved quickly in later two groups. Improvement in urinary output, bowel movement and ambulation were observed earlier in them. All deaths were beyond ten days.

Mortality

It was least in group III as shown in Table II. It is interesting to note that not

only convalescence is better but also death rate is lower in group II and III cases than in group I cases.

TABLE II
Death Rate in Different Groups with No. of Cases

Groups with No. cases	No. of deaths	Percentage
Group-I (20)	9	45
Group-II (20)	5	25
Group-III (20)	3	15

Follow-up

All patients were asked to follow-up at 6 weeks interval. The pelvic findings were increasingly better at time lapse and steadied after six months. The results are shown in Table III.

Only one patient of group III (5.9%) turned up with pregnancy after four years at 16 weeks gestation. She delivered normally a full term male baby (2.750 Kg). None others came with ectopic or disturbed pregnancy.

TABLE I
Persistence of Toxicity, Tachycardia and Abdominal Distension in Days in Different Groups

Groups with No. of cases	Toxicity	Tachycardia	Abdominal distension
Group-I (20)	5-7	7-10	3-6
Group-II (20)	3-4	4-6	3-4
Group-III (20)	2-3	2-3	1-2

TABLE III
Pelvic Findings at Different Groups with No. of Cases After Six Months

Findings	Grade-I (11)	Grade-II (14)	Grade-III (17)
Palpable pelvic mass	7 (63.6%)	6 (42.9%)	2 (11.8%)
Thickened fornices, tender and fixed uterus (R/V; A/V)	3 (27.3%)	3 (21.4%)	2 (11.8%)
No mass uterine morbidity restricted, ut. R/V	1 (9.1%)	3 (21.4%)	4 (23.5%)
Fornices clear	0 (0%)	2 (14.3%)	9 (52.9%)

Discussion

Peritoneal lavage with 0.8% sulphanilamide solution was first used in severe infective peritonitis in 1942 and thereafter various antibiotics either singly or in combination have been used in severe infective peritonitis with variable results. Addition of high concentration of antibiotics intraperitoneally offers the patient much better chance to recover as evidenced by clinical and laboratory findings (Burnette, Brown, Rosemond, 1957). Since metronidazole has been found effective in anaerobic infection, it has not been tried in peritoneal lavage in septic abortion but infrequently in surgical infections (Saha, 1985). Though, such delicate laboratory facility was not available in this district hospital, the clinical results corroborated the above view.

Placental extracts (Inj. Placentrex/Textotone), an aqueous solution of human placenta contains D.N.A., A. T. P., aminoacids, vitamins, enzymes and trace elements all in natural form (Roy, 1985). Its intraperitoneal use has not been studied before through its anti-inflammatory and tissue healing effect have been well documented in various disciplines of medicine. In this clinical study, it caused less adhesion and augmented tissue healing leading to better prognosis (Table III).

The comparison between lavage and non-lavage groups was significant. Mortality was lowest in group III (15%) than in group II (25%) and group I (45%). Shiltri and Panat (1986) had mortality nil in their 21 early surgically treated cases. The higher incidence in the present series may be due to late referral cases from peripheral units. Parikh and Bhatt (1984) have shown steep rise of maternal mortality if laparotomy is done after 24 hours.

Clinical improvement was worth-while in group III than in group II and group I cases. Table I shows that clinical improvement was early in laparotomy and lavage group than laparotomy and drainage group.

At long term follow-up, the results of group III are encouraging. 63.6% of group I and 42.9% of group II as compared to only 11.8% of group III (Table II) suffered from adenexal lump and tenderness (pelvic) leading to dyspareunia and disturbed conjugal life. One pregnancy in group III (5.9%) which culminated in healthy life-born infant rejuvenated the obstetric carrier of the poor woman.

The point of emphasis that laparotomy, early or late can save many female lives of this group but in most cases cannot reinstate their womanhood. The present approach offered them a womanly living hood in their subsequent life in most of the cases.

Conclusion

It is rational and safe to use metronidazole, antibiotics and placental extracts in peritoneal lavage during and after laparotomy of these patients. The results of this study is favourable and shed new light in the treatment of grade III septic abortion patients, but there are still more works to be done for proper evaluation of this procedure.

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