

Septic Abortion Cases at a Tertiary Centre of Khulna region: A descriptive analysis

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Abstract

This was a descriptive type of study. The study was conducted at a tertiary level hospital of Khulna region. It aimed to evaluate the incidence, maternal morbidity & mortality, clinical features, management in cases of septic abortion in a tertiary centre. This study included 33 cases of septic abortion admitted during 5 years from January 2006 to January 2011 in the Department of obstetrics & Gynecology in Khulna Medical College Hospital. All patients were evaluated with special reference to incidence, etiological factors, clinical features, surgery & maternal morbidity & mortality. The incidence of septic abortion was 1.26%. Common age group was between 26-30 years. Most of the cases were from lower socioeconomic status. Septic abortion following spontaneous abortion was present in 4 cases. Unwanted pregnancy was the indication for termination of pregnancy in 29 cases while 4 women were admitted in state of septic shock. 11 cases required laparotomy for drainage of pus, 1 had hysterectomy, 1 had resection anastomosis & uterus repair was done in 2 cases. Overall maternal mortality was 4 (12.12%). The incidence of illegal and septic abortion can be reduced by increasing awareness about family planning services and making legal abortion services easily available to the women and that too at a cheaper cost.

Key Words: Septic Abortion, Maternal Mortality, Morbidity, Unwanted pregnancy.

Introduction

Unnatural deaths are due to some kind of interference among 20-25% of all pregnancy related cases. About 50,000 to 140,000 abortions related unnatural death happen every year in the world.¹ In developed countries it estimated that 20-30% of all pregnancy related unnatural deaths result from complication of unsafely performed abortions.²

In India each year about 1, 25,000 women die from pregnancy related causes.^(3,4) At least 1/5th of these deaths are caused by induced abortion, sepsis being one of the causes. In the majority of cases the infection occurs following illegal induced abortion but can occur even after spontaneous abortion. Abortion was legalized in our country through MTP act in 1972, still the incidence of septic abortion ranges from 2-10%.^(5,6)

Septic abortion is the major life threatening complication that could be tackled significantly through good quality health care. The common cause is abortion by untrained personnel, dais and quacks. Poverty, ignorance and non availability of trained personal contribute to high incidence

of septic abortion. These cases are mostly referred to hospitals very late after occurrence of complications leading to high maternal morbidity and mortality.

Material & Methods

The study was done by evaluating the records of the hospital register of obstetrics & gynaecology department of Khulna Medical College hospital. It comprised of 33 cases of septic abortion over a period of 5 years from January 2006 to January 2011 admitted in the Department of obstetrics and gynecology in Khulna Medical College hospital. This is the only referral centre of the Khulna region. It includes district of Khulna, Bagerhat, Satkhira, Narail, Goplagong, Pirojpur & Jessore. All cases were analyzed with respect to various demographic factors, clinical features, management, complications, maternal morbidity and mortality and surgical intervention.

Result

During the period of the study there were 2612 abortions of which 33 women had septic abortions giving an incidence of 1.26%. Majority of the patients were between the age of 26-30 years. There were 4 primigravida and 29 multi-gravida cases.

Table 1: Distribution of septic abortion cases according to age & gravida. (n=33)

Age (yrs)	Primigravida	Multigravida
20-25	2 (6.06)	3 (9.09)
26-30	1 (3.03)	17 (51.51)
31-35	1 (3.03)	8 (24.24)
36-40	0	1 (3.03)

Most of the cases (26) belonged to lower class, 5 were from lower middle class and 2 from upper middle class.

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Table 2: Distribution of septic abortion cases according to different socioeconomic status. (n=33)

Socioeconomic Status	Cases	Percentage
Lower Class	26	78.78
Lower Middle	5	15.15
Upper Middle	2	6.06

25 patients came from rural areas and 8 were from urban areas. 29 were referred cases.

The period of gestation at the time of abortion was between 7-12 weeks in maximum no. of cases (21).

Table 3: Distribution of septic abortion cases according to period of gestation. (n=33)

Period of Gestation (wks.)	Cases	Percentage
<6	10	30.30
7-12	21	63.63
13-18	2	6.06

Out of total 33 cases 4 patients had sepsis after spontaneous abortion and the remaining 29 was followed by instrumental termination of pregnancy. Untrained persons like quacks or ANMs performed termination in 26 cases and in 3 it was performed by doctor. The indication for termination of pregnancy was unwanted pregnancy in 29 cases. 4 patients had spontaneous incomplete abortion at home and came later on to the hospital with features of sepsis. The common symptoms seen in these patients were pain in abdomen, fever, distension of abdomen, foul smelling vaginal discharge.

Table 4: Distribution of septic abortion cases by clinical features at the time of admission. (n=33)

Clinical Features	Cases	Percentage
Pain in abdomen	31	93.93
Fever	16	48.48
Distension of abdomen	11	33.33
Foul smelling vaginal discharge	6	18.18
Something coming out of vagina	3	9.09

Examination showed tenderness of abdomen with distension and fever in majority of cases. On USG retained products were present in 14 cases, fluid in abdomen and pelvis was present in 16 and both in 3 cases.

Clinically the patients are categorized in 3 grades.

Table 5: Distribution of septic abortion cases of spreading infection according to category of grade. (n=33).

Grade	Spreading site of infection	Cases	Percentage
Grade-I	Infection localized in the uterus.	8	24.25
Grade-II	Infection spreads beyond the uterus to the parametrium, tubes and ovaries or pelvic peritoneum.	4	12.12
Grade-III	Generalized peritonitis and / or endotoxic shock or jaundice or acute renal failure.	21	63.63

Grade I is the commonest and is usually associated with spontaneous abortion. Grade III is almost always associated with illegal induced abortion. Grade I, II, III consisted of 8, 4, and 21 patients out of which 2 developed varying degree of renal failure while 1 developed disseminated intravascular coagulation.

Intensive management, broad spectrum antibiotics, dopamine infusion, blood transfusion, were required.

Table 6: Distribution of septic abortion cases according to medical treatment. (n=33)

Medical Treatment	Cases	Percentage
Broad spectrum Antibiotic	33	100
Dopamine Infusion	4	12.12
Blood Transfusion	22	66.66

Evacuation of uterus was done in 15. colpotomy in 3, laparotomy with drainage of pus in 11, uterus repair in 2, hysterectomy in 1 and resection anastomosis of bowel in 1 patients.

Table 7: Distribution of septic abortion cases according to surgical treatment. (n=33)

Surgical Treatment	Cases	Percentage
Evacuation	15	45.45
Colpotomy	3	9.09
Laparotomy with drainage of pus	11	33.33
Laparotomy with repair of uterus	2	6.06
Laparotomy with hysterectomy	1	3.03
Laparotomy with resection anastomosis	1	3.03

Out of 33 patients, 4 died (12.12%), 2 left against medical advice and one had a relaparotomy. Septic shock, renal failure and disseminated intravascular coagulation (DIC) contributed to maternal mortality. 26 patients had complete recovery.

Discussion

Although non-therapeutic abortions are illegal in Bangladesh, the practice is quite common. About 8000 deaths occur every year due to septic abortion (BFRP-MR news letter 1988). In our study out of 33 septic abortion patients, 26 patients came from lower class family, 5 came from lower middle family & 2 came from upper middle family. According to period of gestation 10 patients were less than 6 weeks, 21 patients were 7 to 12 weeks & 2 patients were 13 to 18 weeks. According to medical treatment broad spectrum antibiotics were given in 33 patients, dopamine infusions were given in 4 patients & blood transfusion were given in 22 patients. Out of 33 patients according to surgical treatment evacuation were done in 15 cases, colpotomy were done in 3 cases, laparotomy with drainage of pus were done in 11 cases, laparotomy with repair of uterus were done in 2 cases, laparotomy with hysterectomy was done in 1 case & laparotomy with resection anastomosis was done in 1 case.⁷

Mesham et al (1981) estimated that in 1978 at least 7,800 unnatural deaths of Bangladeshi women were due to complications of interference of pregnancy. Tahera & Begum (1991) in Dhaka Medical College Hospital showed 86% of the septic causes were due to interference i.e. induced. The unnatural deaths from septic causes were 10%. Azim (1989) found 634 cases of septic abortions in Dhaka Medical College Hospital & the mortality studied to be 12%.⁷

Although abortion services were liberalized in India & Bangladesh more than 4 decades ago, access to safe services remain limited for the vast majority of women. Majority of women seeking abortion still turn to uncertified providers for abortion services because of barriers to legal abortion. Women with access to fewer resources, for example low income, rural women, adolescents are among those most likely to turn to unsafe abortions and have complications.

A septic abortion is a form of abortion that is associated with a serious uterine infection. The infection carries risk of spreading infection to other parts of the body and causing septicemia, a grave risk to life of a woman. Septic shock may lead to kidney failure, bleeding diatheses and DIC^(8,10). Intestinal organs may also become infected, potentially causing scar tissue with chronic pain, intestinal blockage and infertility. If not treated quickly and effectively the woman may die. So early referral of septic cases is important. Once the patient progresses to septicemia complication rate becomes very high. Complications like fever, wound infection and wound dehiscence, pelvic thrombophlebitis are seen in post operative period.^(5,9)

Besides intensive management, broad spectrum antibiotics, dopamine, blood transfusion and early surgical intervention can significantly improve the outcome. Surgery in the form

of D, E & C, laparotomy, hysterectomy was done to remove the source of infection as early as possible. Role of early surgery is controversial but studies by Singhal et al and Rivlin and Hunt^(9,10) have shown that early surgical intervention can significantly improve the outcome. Our study also showed similar results. A similar study by Shailesh Kore, et al.¹¹ showed that mortality was 100% in conservative group as compared to 20% in the surgery group.

Although abortion has been greatly liberalized, the annual number of legal abortions are about 0.6 million, which contribute hardly 10% of the abortions done in the country. In other words, illegal abortions are still common although it is now more than 40 years since the MTP Act has been promulgated. Experts opinion that facilities for safe, legal abortion should be made universally available.^(11,12)

Septic abortion, a complication mainly due to illiteracy and unawareness can be prevented by increasing education and awareness about availability of family planning services and MTP services free of cost in the government hospitals. To reduce mortality and morbidity from unsafe abortion several broad activities require strengthening, decreasing unwanted pregnancies, increasing access to safe abortion services and increasing the quality of abortion care including post abortion care.

Conclusion

2612 abortion cases were studied in the department of obstetrics & gynecology at Khulna medical college hospital from January, 2006 to January, 2011. Out of them, 33 (1.26%) cases were septic abortion. 26 (78.78%) cases belonged to lower class. 18 (54.54%) cases were between the age of 26-30 years. Out of 33 patients, 4 (12.12%) was died. Septic abortion is one of the important cause of maternal mortality.

Recommendation

- Prevention of early marriage & implementation of existing law properly.
- Unwanted pregnancy should be avoided with proper attention of the guardian.
- Proper child bearing spacing should be maintained with family planning logistics by counseling of the family planning department.
- Easy availability of family planning logistics should be maintained.
- Prohibition of treatment of dhais, quacks & other village doctors.

References

1. Knight B. Forensic Medicine, 10th edition. Butler and Tanner, London. 1991:181-187.
2. Bowen D. abortion. In: Mant KA. (Editor). Principles and practice of Medical Jurisprudence, Churchill living stone 13th edition.

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3. Maternal death [http://en.wikipedia.org/wiki/maternal death](http://en.wikipedia.org/wiki/maternal_death).
 4. Maternal mortality <http://www.icm.tn.goc.in/intersession/maternal.htm>.
 5. Hiralal K. Changing trends in septic abortion. J obstet gynec of India 1992; 42: 266-92.
 6. Rana A, Pradhan N, Singh M. Induced septic abortion, a major factor in maternal mortality and morbidity. J obstet gynec of Research 2004; 30: 3.
 7. Azim A, Begume N. Septic Abortion a major problem in Bangladesh. Proceedings of the 1st International Conference on Obstetrics and Gynecological Society of Bangladesh.
 8. Hawkins DF, Sevitt LH, Fairbrother PF et al. Management of septic chemical abortion with renal failure. N Engl J Med 1975; 292:722-5.
 9. Sharma JB, Manaktala AK, Malhotra M. Complications and management of septic abortion, A five year study. J obstet and Gynecol Ind 2001; 51:74-
 10. Reid DE. Assessment and management of seriously ill patients following abortion JAMA 1967; 199:805-7.
 11. Shailesh Kore, sanjay rao et al. j.obstet gynecol india vol.54 no.3 may-june 2004.289-292.
 12. Singhal PC, Kher VK, Dhall GI et al. Conservative Vs surgical management of septic abortion with renal failure. Int J Gynaeco Obstet 1982; 20:189-94.