

Original Articles

Outcome of Septic Abortion –Experience from a Tertiary Referral Hospital

IRIN PARVEEN ALAM¹, SHRODDHA NIBEDITA PAUL², PARUL AKHTER³

Abstract

Objective: Septic abortion is a life threatening complication of induced abortion. Being a tertiary referral hospital in Bangladesh, Sir Salimullah Medical College and Mitford Hospital often deals with such cases of septic abortion. This research work was conducted with the aim of evaluation of frequency, complications and outcome of septic abortion in this institute.

Method: A cross sectional observational study was conducted from January 2016 to December 2016 in the department of Obstetrics and Gynaecology, Sir Salimullah Medical College and Mitford Hospital, Bangladesh. All cases of septic abortion admitted in the department were included in the study.

Results: During one-year period total number of Gynaecological admission cases were 11,351, of which 1065 were abortion cases, among them 28 cases were diagnosed as septic abortion. The frequency of septic abortion thus was 2.6% of the abortion admitted cases. Age range of the patients was between 15 to 45 years. Majority (60.71%) of the cases were grand multigravida, belonging to poor socioeconomic group (71%). Most of the patients (68%) came with haemorrhage.

The most frequent method (50%) used for termination of pregnancy in this study was Menstrual Regulation (MR) in unhygienic environment. Mostly (57.14%) the patients were managed by evacuation and curettage. Laparotomy was also needed for the definitive management of two patients. Maternal mortality in this study group was one out of 28 (3.7%).

Conclusion: Septic abortion contributes significantly to maternal morbidity and mortality. Proper use of contraceptives, avoidance of induced abortion in unhygienic condition can reduce the moribund consequences. In this study one maternal death among 28 septic abortion cases indicate proper standard of care of the hospital.

Keywords: Unsafe Menstrual Regulation, Septic abortion, Maternal mortality.

Introduction

Any abortion which is complicated with infection is called septic abortion,¹. It remains one of the most serious threats to women's health worldwide. It is estimated that 21 to 22 million unsafe abortions occur worldwide, and 98 percent of these abortions occur in the developing world². This complication is frequently associated with criminally induced unsafe

abortions. Unsafe abortion is defined as the termination of an unintended pregnancy either by individuals without the necessary skills or in an environment that does not meet minimum medical standards, or both.² Unsafe abortions is a major factor in maternal morbidity and mortality and accounts for about 4.7 to 13.2 percent of maternal deaths worldwide each year.³ Additionally, one in

1. Associate Prof., Dept. of Obstetrics & Gynaecology, Sir Salimullah Medical College and Mitford Hospital.

2. Junior Consultant, Dept. of Obstetrics & Gynaecology, Dhaka Medical College Hospital.

3. Assistant Prof., Dept. of Obstetrics & Gynaecology, Sir Salimullah Medical College and Mitford Hospital.

Address of Correspondence: Dr. Irin Parveen Alam, FCPS, MS (Obstetrics & Gynaecology), Associate Prof., Dept. of Obstetrics & Gynaecology, Sir Salimullah Medical College Mitford Hospital. Dhaka. Mobile: +88-01715348398, E-mail: dririn.alam@yahoo.com

eight pregnancy-related deaths is the result of unsafe abortion².

In Bangladesh induced abortions are performed in unhygienic environment with subsequent risk of complications. Morbidity is a much more common consequence of unsafe abortion than mortality. Septic abortion is defined as follows: Rise of temperature to at least 100.4°F (38°C) for 24 hours or more, pulse rate of 100-120/minute or more, offensive or purulent vaginal discharge, and evidence of pelvic infection⁵. Complications include hemorrhage, sepsis, peritonitis, and injury to the cervix, vagina, uterus, and abdominal organs.⁵

This study was conducted to observe the overall scenario of septic abortion in a tertiary hospital of Dhaka city. The main concern was to collect the septic abortion related data and to find out the methods of termination which was mostly related to septic abortion and way of management. The result of this work can be used in further community based studies to identify actual prevalence and consequences of septic abortion.

Subjects and Methods

Methods- This cross sectional observational study was carried out from Jan 2016-Dec 2016 for a period of one year in the Department of Obstetrics and Gynaecology, Sir Salimullah Medical College Mitford Hospital, Dhaka. All the admitted septic abortion cases during the period were included in the study. A total 28 patients were admitted as emergency cases with symptoms and signs of septic abortion. Purpose and procedure of the study were discussed with the patients. Then a written informed consent was obtained from each patient or from authorized guardian before participation in the study. Each patient being interviewed face to face by using semi structured interview schedule in which sociodemographic variables, examination findings and abortion outcome related variables were recorded in checklist. Medical records of all cases were scrutinized for signs of sepsis, clinical management, investigations and outcome. Data were compiled, analyzed and presented in tabular form as percentage.

Results:

During the year 2016 total number of gynaecological admission were 11351, of which 1065 were abortions,

among them 28 cases were detected as septic abortions. The frequency of septic abortion was 2.6%.

Age range of the patients was between 15 to 45 years (Table-I). Maximum (64.21%) patients belonged to 21- 29 years age group. Most patients were within parity (1-3) group, among them 5 were primigravida and rest were multigravida (Table-II). Most of patients (71.42%) came from poor socioeconomic group. None of them were in rich group, though 28.57% were in middle class group (Table-III). Majority of the patients presented with hemorrhage with sepsis (Fig.-1). Most of the abortion with sepsis (64.24%) were induced (Table-IV).

The most frequent (50%) method used for termination of pregnancy in this study group was menstrual regulation in unhygienic environment (Table-V). Mostly the patients were managed by evacuation and curettage. Laparotomy required for the management of two patients for uterine perforation and control of bleeding (Table-VI). Most of the patients (50%) could be discharged from hospital within 2 days of hospital admission (Table-VII).

Table-I

Age groups related to septic induced abortion (n=28)

Age in years	No.	%
15-20	3	10.71
21-29	15	64.2
30-39	8	28.57
40-45	2	7.14

Table-II

Gravidity related to septic induced abortion (n=28)

Parity	Number	%
0	5	17.85
1-3	17	60.71
4-6	3	10.71
7-9	3	10.71

Table-III

Socioeconomic status of patients

Socioeconomic status	No. of patients	%
Poor	20	71.42
Middle class	8	28.57
Rich	0	0

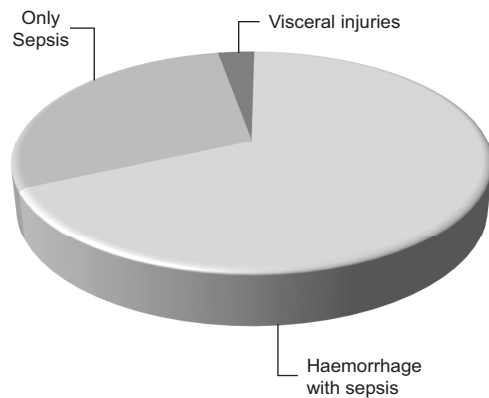


Fig.-1: Main presenting symptoms (n= 28)

Table-IV
Mode of abortion

Mode of abortion	Number	%
Spontaneous	10	35.71%
Induced	18	64.24

Table-V
Methods used to induce abortion (n=18)

Method	Nos.	%
MRM	8	44.44
Menstrual regulation in unhygienic condition	9	50
Dilatation and curettage	1	5.55

Table-VI
Types of treatment needed (n=28)

Mode	Nos	%
Evacuation and curettage under G.A	16	57.14
Manual vacuum Aspiration	8	28.57
Laparotomy and subtotal hysterectomy	2	7.14
Only resuscitation	2	7.14

Table-VII
Hospital stay (n=28)

Day	No. of patient
1 day	1
2 day	14 (50%)
3 - 4 day	8
5-7 day	3
More then 7 days	1

Discussion:

According to WHO it is estimated that 21 to 22 million unsafe abortions occur worldwide, and 98 percent of these abortions occur in the developing world². Unsafe abortion most commonly occurs in countries where the procedure is highly restricted; therefore, the procedures occur under a cloud of secrecy⁶. Demographic & Health Survey of Bangladesh in 2014 showed that 55% of ever-married women were not aware of the MR (Menstrual regulation) program in Bangladesh⁷.

In this study maximum patients were within 20-29 years age, about 82% of the patients were multiparous. Singh et al⁸ found that majority (81.25%) of age group for septic abortion was between 21 and 35 years and 62.5% of septic abortion cases were multiparous. Here surgical treatment required 26 (92.86%) among 28 patient. A study showed surgical treatment received by 78.33%.⁹ Another study by Naib et al (2004) showed need of surgical treatment 99.99%. Major surgery like laparotomy needed in 34.04% followed by total abdominal hysterectomy 23.32%.¹⁰ In this study 19 patients (67.85%) presented with sepsis and haemorrhage, 8(25.57%) presented with only sepsis and one (3.57%) had uterine perforation. In a study of 52 cases, forty two patients (80.7%) presented with haemorrhage both external and internal,¹⁰ and two patients (3.8%) had gut injury,¹¹ results are in contrast to the study conducted in Peshawar at Khyber Teaching Hospital, where 37.7% of patients presented with haemorrhage, 42.8% with sepsis and 21.42% with visceral injuries.¹⁰

In this study one patient died due to septic shock with adult respiratory distress syndrome 1 in 28 (13.1%). This unfortunate lady had performed abortion by unauthorized person and had history of pervaginal bleeding for one month; she was severely anaemic, cyanosed, and oedematous with gasping respiration when she arrived at hospital. Different study showed death due to septic abortion was 8.33%⁹, Naib et al in Pakistan 7.5%¹⁰. Septic induced abortion is an important cause of maternal morbidity and mortality and is completely preventable¹².

In Bangladesh emergency contraceptives are widely practiced, menstrual regulations available within 6-8 weeks of missed period, and Menstrual Regulation with Medication (MRM) are also available within 63 days of missed period. Knowledge of these findings

should be shared to the whole community. Women who were rejected for MR, because, of their advanced pregnancy state or other reasons, often continue to seek a termination¹³. These patients often come in a moribund stage to a Government Hospital as a last resort and one has to give multiple antibiotic coverage to treat the infection and then surgery like evacuation of the uterus, colpotomy to drain a pelvic abscess, or laparotomy to deal with visceral injuries¹⁰.

Conclusion and Recommendations:

In conclusion, most septic abortion cases are due to induced abortion. complication of induced septic abortion is totally preventable. Management is a multidisciplinary approach. Early recognition and urgent management of the patients can prevent development of life threatening complications. Proper use of effective contraception, strengthening the family welfare services and avoidance of induced abortion in unhygienic situation can reduce the incidence of septic abortion.

Acknowledgements:

I would like to express my great appreciation to Prof, Farhat Hussain Head of Department of Obstetrics & Gynaecology and Prof. Muna Shalima Jahan, unit head for their valuable and constructive suggestions during the planning of this research work. I am also grateful to all doctors, staffs and patients of Sir Salimullah Medical College and Mitford hospital, specially OBGYN and Surgery department, who were involved in the care and management of the patients.

References:

1. Mundigo AI, Indriso C, and World Health Organization. Abortion in the developing world. 1999, London ; New York: Zed Books.
2. World Health Organization, Department of Reproductive Health and Research. Unsafe abortion: global and regional estimates of incidence of unsafe abortion and associated mortality in 2008, 6, WHO, Geneva 2011.
3. Say L, Chou D, Gemmill A, et al. Global causes of maternal death: a WHO systematic analysis. *Lancet Glob Health* 2014; 2:e323.
4. Akhter, Halida. H. 1986. "Medical Practice after Legalization of Abortion: Bangladesh." *Prevention and Treatment of Contraceptive Failure*, U. Landy and S. S. Ratnam (eds.). NewYork: Plenum Press, 1986.
5. Pal A, Ray P, Hazra S, Mondal TK. Review of changing trends in maternal mortality in rural medical college in West Bengal. *J Obstet Gynaecol India* 2005;55:521-4
6. Sing S, Wulf D, Hussain R, et al. *Abortion Worldwide: A Decade of Uneven Progress*, Guttmacher Institute, New York 2009
7. Bangladesh demographic and health survey 2014. Dhaka, Bangladesh, and Rockville, Maryland, USA: NIPORT, Mitra and Associates, and ICF International; 2016
8. Singh R, Nagrath A, Taneja S. Evaluation of septic abortions over past six years in a teaching hospital. *J Obstet Gynaecol India* 2007;57:61-3.
9. Malik A, KamrunNess, Begum R: Septic Abortion and Associated Morbidity and Mortality. *CMOSHMC Journal*, 2013;12(3):20-22. Issue 3, September 2013
10. Naib JM, Siddiqui MI, Afridi B. A review of septic induced abortion cases in one year at khyber Teaching Hospital Peshawar. *J Ayub Medical College Abbottabad*. 2004; 16 (3) 59 - 62.
11. Anisa F, Humaira N, Khalid K, Aziz-UN, 'Septic induced abortions *J Ayub Med Coll Abbottabad* 2008;20(4);145-148.
12. Phillip G, Grimes DA. Septic abortion. *N Eng J Med* 1994;331:310-14.
13. Kamal, G.M. and Begum, S.F. Study on Intervention Necessary for Preventing Rejection of MR Clients. BAPSA, Bangladesh 1990.