

A Case Series of Septic Abortion During Covid-19 Pandemic at A Tertiary Care Centre in New Delhi, India

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Abstract

Background: Developing countries accounts for 56% of unsafe abortions as compared to 6% in developed countries and leads to high maternal morbidity and mortality.

Materials and Methods: A cross sectional study was conducted from March 2021 to June 2021 during covid pandemic. All women presenting with diagnosis of septic abortions to our hospital were included in the study. The details of all the patients including their demography, clinical presentation and outcome were collected and subjected to statistical analysis.

Results: The incidence of septic abortion in our study was estimated to be 4.4%. Age range of the patients was between 15 to 45 years. Majority of the patients were grand multigravida, belonging to lower socioeconomic group. The main reason behind getting abortion done was unprotected intercourse. Unauthorized place and person carrying out the abortion was seen in 61% women. Most common presenting complaint was fever and the majority underwent laparotomy for uterine perforation. Maternal mortality was seen in 2 out of 13 cases i.e. 15.4%.

Conclusion: Unsafe abortion is still prevalent in developing countries. Septic abortions contribute significantly to maternal morbidity and mortality. All attempts should be made on improving access to contraceptive and safe abortion practices to curtail this menace.

Keywords: unsafe abortion; septic abortion; maternal mortality; sepsis; uterine rupture

Introduction

India has a maternal mortality ratio (MMR) of 113/ 100000 live births. Out of this, 8% is because of unsafe abortion. Approximately, 13 women die in India every day because of unsafe abortion [1]. Unsafe abortion is the third most common cause of maternal mortality in our country and worldwide the toll is 1 in 8 maternal mortality [2,3]. Factors contributing to unsafe abortion include lack of awareness that abortion is legal, gender discrimination, lack of qualified providers for safe abortion, limited accessibility of medical termination of pregnancy (MTP) services and high unmet need for contraception [4]. To an already insufficient system in providing safe MTP services, COVID 19 pandemic further added by imposing more restrictions.

The consequences of lockdown, restriction on access to sexual and reproductive health services and health centers turning covid care facilities was seen to be associated with rise in unsafe abortions [5].

Septic abortion mainly occurs due to unsafe abortion practices, which WHO defines as “a procedure for terminating an unintended pregnancy either by individuals without the necessary skills or in an environment that does not conform to minimum medical standards, or both” [6]. Death and serious complications from abortion-related infection are preventable. This study was conducted to study the frequency, socio- demographic factors,

presentation, complications and outcomes of septic abortions during COVID 19 pandemic at a tertiary care hospital with the aim of analyzing the factors behind and highlight corrective possible actions.

Materials And Methods

A cross sectional study was conducted from March 2021 to June 2021 during covid pandemic. All women presenting with diagnosis of septic abortion presenting to our facility during this time were included in study. A total of thirteen cases were enrolled. Preliminary demographic data, clinical

parameters on presentation, investigation and outcomes were collected retrospectively, compiled and subjected to statistical analysis.

Results

In the duration of our study, the total number of admissions in the department of Obstetrics and Gynecology were 9,183. Among these, 295 were cases of abortion. Out of these 295 abortions, 13 were diagnosed with septic abortion accounting to incidence of 4.4 %.

Socio-demographic factors are listed in Table 1. Majority (77%) were in the age group of 20–40 years. Eleven out of thirteen women i.e., 84.6 % underwent induced abortion and among these 69 % were done at an unauthorized place. The provider was unqualified in 61% cases. Medically induced abortion was in 38.5% women, 23% were surgically induced and 38.5% had medical abortion followed by surgical. In 69.2 % of cases, abortion was induced within 12 weeks of gestation and after 12 weeks in 4 cases (30.8%). Unprotected intercourse (61.5 %), family size (30 %), economic limitations (23 %), and inadequate spacing (15 %) were the major reasons behind termination of pregnancy.

Majority (61.5%) of women developed features of septic abortion within 5 days of induced abortion.

Fever was the predominant presenting complaint. Majority (84 %) had a quick SOFA (qsofa) score of more than 1. All women (100%) fulfilled systemic inflammatory response syndrome (SIRS) criteria with a score of 2 or more. Among the SIRS criteria, temperature of more than 38⁰ C was seen in 12 (92%) women, tachypnea in 11 (84%), tachycardia in 12 and leukocytosis in 11.

Complications following septic abortion were seen in 84.6 % women (11/13). Respiratory distress syndrome was diagnosed in 10(76.9%), septic shock in 8 (61.5 %), uterine perforation in 7(53.8 %), renal failure in 4(30.8 %), peritonitis in 3(23.1 %), pelvic abscess and bowel/bladder injury in 1(7.7 %) each. One patient was complicated with COVID positive severe acute respiratory infection (SARI).

Laparotomy was done in 9 women. Among these, uterine perforation was in 7, adherent placenta in 1, pyo-peritoneum in 1. Associated bladder and bowel injury in 1 case each. Maternal mortality in our study was found to be 15.4%.

Demographic Characteristic	Number (N=13)	Percentage (%)
Age		
15-19y	1	7.7%
20-29 y	5	38.5%
30-40y	5	38.5%
>40y	2	15.4%
Marital Status		
Married	13	100%
Unmarried	-	-
Residence		
Rural	7	53.8%
Urban	6	46.2%
Religion		
Hindu	8	61.5%
Muslim	5	38.5%
Education		
Illiterate	4	30.8%
Primary and above	9	69.2%
Parity		
Primigravida	2	15.4%
Multigravida	11	84.6%

Table 1: Socio-demographic characteristics.

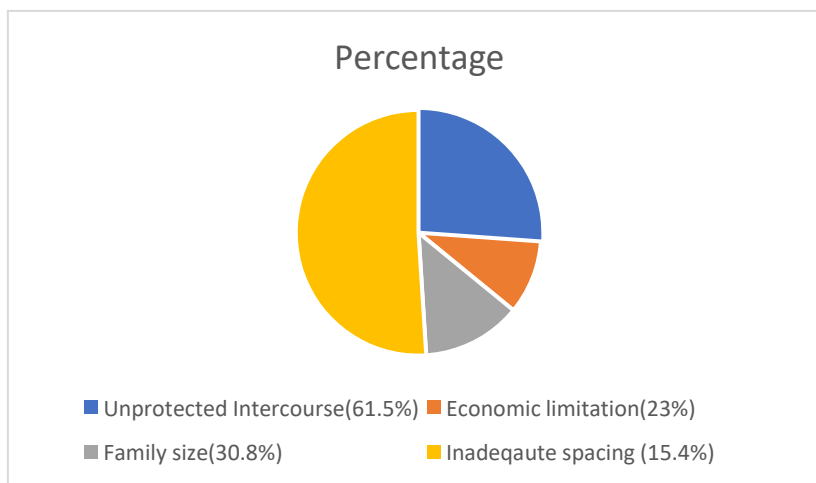


Figure 1: Reasons for getting abortion done

	Number of patients	Percentage (%)
PRESENTING COMPLAINTS	(N=13)	
Fever	13	100%
Abdominal pain	11	76.9%
Bleeding per vagina	8	84.6%
Vaginal discharge	6	61.5%
Urinary complaints		60%
qSOFA		
< 2	2	15.4%
≥2	11	84.6%
SIRS		
< 2	0	0
≥2	13	100%
COMPLICATIONS		
PREOPERATIVE INTRAOPERATIVE & DURING HOSPITAL STAY *		
1. Generalized peritonitis	3	23.1%
2. Pelvic abscess	1	7.7%
3. Renal failure	4	30.8%
4. Septic shock	8	61.5%
5. Uterine perforation	7	53.8%
6. Bowel injury	1	7.7%
7. Bladder injury	1	7.7%
8. Respiratory distress	10	76.9%
9. COVID positive SARI	1	7.7%
POST-OPERATIVE	N= 10	
Vasopressor/inotrope support		
2. Post-procedure fever	8	61.5%
3. Prolonged Post-procedure intubation (>2 days)	6	60%
4. Stitch line sepsis in case of laparotomy	5	50%
Repeat D&C +Re-laparotomy	1	10%
	2+1	30%
OUTCOME		
Discharged	9	69.2%
Referred	2	15.4%
Death	2	15.4%

Table 2: Clinical scenario and outcome

*more than 1 complications in 1 patient.

Discussion

The incidence of septic abortion in our study was 4.4% comparable to the study by Roy et al.⁷ Incidence of septic abortion varies widely between developed and developing countries. Factors responsible for such a difference are lack of awareness about the health facilities available, legislation, socio-economic status and education of the population. Rising incidence of septic abortion during COVID pandemic could be due to lockdown and lack of easy access to health facilities. The actual number of unsafe abortions worldwide increased from 19.7 million in 2003 to 21.6 million in 2008 because of the growth of the population of women of childbearing age [2].

In our study the majority of patients (77 %) were in the age group of 20–40 years similar to the findings of study by Sreelakshmi et al. [8] More than half of the cases who had septic abortions were from below poverty line in our study similar to the findings of Das et al where it was 70%. [9] This emphasizes the need to ensure increased awareness regarding contraception and safe abortion services available. Role of health care professionals, NGO's and media should be enhanced to help support the government health services available.

In a study conducted by Agrawal et al, [10] socioeconomic status and unwanted pregnancy were the main reasons for MTP (81.2%) as compared to our study where predominant cause was unprotected intercourse. This reason can be explained by decreased access to contraceptive services during Covid 19 pandemic.

MTP is a safe and easy procedure in trained hands but becomes life threatening when performed by untrained persons in unsterile conditions. In our study, majority (69%) of the patients had their abortion done at home or at unauthorized places by dais or untrained personnel. It is observed that sometimes the attitudes of staff, residents and doctors in hospitals are not patient friendly, especially if she is seeking MTP services for an unwanted pregnancy. Thus, the woman is driven towards an inappropriate person seeking confidentiality. Sharma et al, had similar observations. 67.7% of women in their study had abortions by dais and other untrained persons at home or at unhygienic places. [11] Induced abortion conducted by untrained persons remain the most important cause of septic abortion. In present study, 69.2 % of women had first-trimester abortion similar to the findings of Jain et al and Kore et al. [12,13] Majority got admitted within an average of 13 days of induction of abortion. The time elapsed between induction of abortion and hospital admission is an important risk factor for sepsis in these cases. Roy et al and Sharma et al found instrumentation as the commonest cause for sepsis in 84 % and 67.7 % of cases respectively and in present study, non-adherence to strict asepsis and incomplete evacuation were the factors behind septic abortion. [7,11]

In present study, complications following septic abortion were seen in 11 women (84.6%) which was much higher in comparison to the study by Sreelakshmi et al.⁸ This could be due to mismanagement by untrained persons in nearby areas, COVID pandemic or refusal of treatment at many facilities which became COVID care centers, reluctance of patients to visit hospital during pandemic and also lack of transportation facilities leading to life threatening complications by the time a patient arrives at tertiary care hospital.

In other studies, the rate of laparotomy varied between 16-62.6% [8,9,10] as compared to 69% in our study. Maternal mortality attributed to unsafe abortion ranged from 6.45% to 26.4%. [13,14,15]

In spite of aggressive management, we lost 2 patients (15.4%) of which 1 had DIC and the other died of multiorgan dysfunction (MODS).

Discussion

Primary prevention of septic abortion is the need of hour. Access to effective and acceptable contraception, access to safe legal abortion in case of contraceptive failure and appropriate medical management of abortion are the points to ponder and should be emphasized. Abortion care is an essential

part of health care for women: services must be maintained even where non-urgent or elective services are suspended. Abortion is time-sensitive, and attention should be paid to providing care as early as possible given gestational limits. Access to abortion care should be organized so that delays are minimized. Avoiding unintended pregnancy is a prerequisite in preventing unwanted pregnancies by ensuring social equality. Upliftment of women's status so that they can avoid coercive sexual relationships and use contraceptive methods that they regard as safe and free of side effects. Secondary prevention involves early detection of unwanted pregnancy and its timely management following WHO criteria of safe abortion. Also, it involves early detection and meticulous management of septic abortion to reduce maternal morbidity and mortality.

There is a need for a more vigorous dissemination of information on safe methods of contraception, for better training of health care providers on techniques of asepsis and for recognition of symptoms and signs of complications that indicate a need for early referral.

References

1. <https://pmj.bmj.com/content/93/1105/710.abstract>.
2. Sedgh G, Singh S, Shah IH et al. (2021). Induced abortion: incidence and trends worldwide from 1995 to 2008. *Lancet*.
3. World Health Organization, Maternal and Child Health Unit and Family Planning, Division of Family Health: Unsafe Abortion: Global and regional estimates of the incidence of unsafe abortion and associated mortality in 2008. 6th ed. Geneva, WHO, 2011.
4. Samuel TJ. The development of India's policy of population control. *Milbank Mem Fund Q*. 1966; 44:49-67.
5. Todd-Gher J, Shah P.K. (2020). Abortion in the context of COVID-19: a human rights imperative. *Sexual and Reproductive Health Matters*; 28(1): 1758394.
6. World Health Organization. The prevention and management of unsafe abortion—report of a technical working group. Geneva (Switzerland): World Health Organization; 1992.
7. Roy A, Patra KK, Ganguly RP. (2006). Clinicopathological study of septic abortion. *J Obstet Gynecol India*; 9(7):394-396.
8. Sreelakshmi U, Thejaswini J, Bharathi T. (2014). The Outcome of Septic Abortion: A Tertiary Care Hospital Experience. *The Journal of Obstetrics and Gynecology of India* ;64(4):265.
9. Das V, Agarwal A, Misra A et al. (2008). Septic Abortion. *J Obstet Gynaecol India*.2006; 6: 236-239.
10. Agarwal S, Salhan S. Septic abortion—current scenario in a tertiary care hospital. *J Obstet Gynecol India*; 58(2):147-151.
11. Sharma M, Malhotra P, Jain P et al. (2008). Role of early active management in patients of septic abortion. *J Obstet & Gynaecol. Today*; 13:459-461.
12. Jain V, Saha SC, Bagga R, Gopalan S. (2004). Unsafe abortion: A neglected tragedy. Review from a tertiary care hospital in India. *J. Obstet. Gynaecol*; 30(3):197-201.
13. Kore S, Rao S, Pandole A, Rudrawar R, Kamath S, Ambiyev V. (2004). Outcome of septic abortions: impact of tertiary care. *J Obstet Gynecol India*; 54(3):289-292.
14. Verma K, Thomas A, Sharma A, et al: Maternal mortality in rural India: A hospital-based, 10-year retrospective analysis. *J Obstet Gynecol Res* 27:183, 2001.
15. Kumar M., Puri M., Yadav R., et al. (2021). Stillbirths and the COVID-19 pandemic: Looking beyond SARS-CoV-2 infection; 153(1):76-82.



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