

**SEPTIC ABORTION: AN AVOIDABLE TRAGIC COMPLICATION**Neelam Nalini<sup>1</sup>**HOW TO CITE THIS ARTICLE:**

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**ABSTRACT:** Aim of this study was to study the incidence, demographic factors, clinical features, management, maternal morbidity, maternal mortality, surgical interventions with special emphasis on various contributing factors and unmet needs of septic abortion. In this study, 153 cases of septic abortions during six years periods, from January 2009 to December 2014 in the department of obstetrics and gynecology in Rajendra Institute of Medical Sciences, Ranchi, were included. All patients were evaluated with special reference to incidence, age incidence, marital status, socio economic status, residential distribution, gravida incidence, causes of septic abortion, grades of infection, clinical presentation, and management. Incidence of septic abortion was 3.88%. Criminal interference was in 74% of cases. Most of the cases (65%) were from low socioeconomic group. Sixty percent were from rural area. Fifty eight percent were tribal. Sixteen percent were admitted in septic shock. Laparotomy was required in seventeen percent of cases. Hysterectomy was require in five cases. Unfortunately, maternal death was nine. Cause of maternal death was septic shock in six and haemorrhagic shock in three. This incidence of septic abortion can be reduced by increasing awareness and making "safe abortion services" easily available, free of coast and also by providing family planning services.

**KEYWORDS:** Septic shock, Haemorrhagic shock, unsafe abortion, Endometritis.

**INTRODUCTION:** Septic abortion is a result of unsafe abortion which is defined as a procedure for the termination of unwanted pregnancy either by persons lacking the necessary skills or in an environment lacking the minimal medical standards or both (WHO definition).<sup>1</sup> Septic abortion complicated by fever, endometritis and parametritis remain one of the most serious threats to women's health worldwide. Abortion was legalized in our country through MTP act in 1971, still the incidence of septic abortion ranges from 2 to 10%.<sup>2,3</sup> Although morbidity and mortality from septic abortion infrequent in countries in which induced abortion is legal, suffering and death from this process are widespread in many developing countries in which abortion is either illegal or inaccessible. Present study analyzes the cases of septic abortion in a tertiary referral center plus teaching hospital, to find out the resultant maternal morbidity and mortality with special emphasis on various contributing factors and unmet needs of safe abortion.

**MATERIAL & METHODS:** The present study comprised of 153 cases of septic abortion over a period of 6 Years from January 2009 to December 2014 admitted in the Department of obstetrics and Gynecology in Rajendra institute of Medical sciences Ranchi, Jharkhand. This is the tertiary Centre of Jharkhand (Predominantly tribal area). The clinical criteria for diagnosis of septic abortion were as follows. Post abortal patients <22 weeks having:

- A. (a) Rise of temperature of at least 100.4<sup>o</sup>f (38<sup>o</sup>C) for 24 hrs or more.
- (b) Offensive/ Purulent Vaginal discharge.
- (c) Other evidences of pelvic infection such as lower abdominal pain and tenderness.

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### B. Complication of septic abortion like hemorrhage, injury to uterus, adnexa or gut.

All cases were analysed with respect to various demographic factors, clinical features, management, complications, maternal morbidity, mortality and surgical interventions.

The cases under study were graded in to three clinical grades

**Grade 1:** Included those cases with infection limited to the uterus.

**Grade 2:** Included those in which the infection had spread to the adnexae, pelvic peritoneum and parametrium.

**Grade 3:** included all those cases in which there was evidence of peritonitis, septic shock, renal failure or coagulation defect.

**RESULT:** As shown in table-8, criminal interference was in 74 % of cases. It shows the inaccessibility of doctors and lack of knowledge of client. Table-9 shows that 56% of cases were beyond 18 weeks of gestations. The complications are shown in table - 11, generalized peritonitis was present in 14% and septic shock in 10% of cases. Culture, sensitivity reports of high vaginal and endocervical swabs showed E. coli in 53.8% of cases, staphylococci in 8 %, B-haemolytic streptococci in 10.2% of cases, bacteroids in 6 cases and gonococci, Chlamydia, C perfringens, Mycoplasma hominis and Haemophilus influenzae in rest of the cases.

Total No. of abortion	4014
No. of septic abortion	153
Incidence of septic abortion	3.88

**Table 1: Incidence of septic abortion during the period of Jan 2009 to Dec. 2014**

Age in years	Number	Percentage
<20	25	16%
21-30	55	36%
31-40	61	40%
>40	12	8%
<b>Total</b>	<b>153</b>	<b>100</b>

**Table 2: Age incidence of septic abortion**

Marital Status	Number	Percentage
Married	119	77.45%
Unmarried	18	12%
Widow	16	10.46%
<b>Total</b>	<b>153</b>	<b>100%</b>

**Table 3: Marital Status of cases**

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<b>Scio-Economic group</b>	<b>Number</b>	<b>Percentage</b>
High	9	6%
Middle	44	29%
Low	100	65%
<b>Total</b>	<b>153</b>	<b>100%</b>

**Table 4: Showing Socio-economic status**

<b>Residence</b>	<b>Number</b>	<b>Percentage</b>
Rural	101	66%
Urban	52	34%
<b>Total</b>	<b>153</b>	<b>100%</b>

**Table 5: Showing residential distribution**

	<b>Number</b>	<b>Percentage</b>
Tribal	89	58%
Non tribal	64	42%
<b>Total</b>	<b>153</b>	<b>100%</b>

**Table 6: Showing tribal/nontribal distribution**

<b>Gravida</b>	<b>Number</b>	<b>Percentage</b>
1	08	5.3%
2	46	30%
3	54	35%
4	27	18%
>5	18	11.7%
<b>Total</b>	<b>153</b>	<b>100%</b>

**Table 7: Showing gravida incidence**

<b>Type of abortion</b>	<b>Number</b>	<b>Percentage</b>
Spontaneous	22	14%
Criminal Interference	113	74%
M T P	18	12%
<b>Total</b>	<b>153</b>	<b>100%</b>

**Table 8: Causes of Septic abortion**

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Period of Gestation (in weeks)	Number	Percentage
6-9	12	8%
10-14	18	12%
15-18	37	24%
>18	86	56%
<b>Total</b>	<b>153</b>	<b>100%</b>

Table 9: Incidence according to period of Gestation

Grade of Infection	Number	Percentage
I	126	82.38%
II	25	16%
III	02	1.61%
<b>Total</b>	<b>153</b>	<b>100%</b>

Table 10: Grades of infection

Clinical Presentation	Number	Percentage
Generalised Peritonitis	22	14%
Septic shock	16	10%
Tender fornixes	34	22%
Pelvic abscess	04	2.03%
Haemorrhagic shock	22	14%
Localised Uterine infection	55	34.97%
<b>Total</b>	<b>153</b>	<b>100%</b>

Table 11: Clinical Presentation on admission

Grade of infection & Number	Conservative Treatment		Surgical Treatment	
	No.	%	No.	%
I (126)	40	32%	86	68%
II (25)	10	39%	15	61%
III (02)	0	0%	02	100%

Table 12: Management according to clinical grading

Type	Number	Percentage of Total (153)
D & E	86	56.20%
Laparotomy	17	11.11%
Conservative Treatment	50	32.67%
	<b>153 (Total)</b>	

Table 13: Surgical intervention

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Type of surgery	No.	%
Peritoneal toileting and drainage of pus	06	35.29%
Repair of uterine rent and drainage	06	35.29%
Hysterectomy and drainage	05	29.41%
<b>Total</b>	<b>17</b>	<b>100%</b>

**Table 14: Type of Surgery following Laparotomy**

Unfortunately no. of maternal death was nine. Cause of maternal death was septic shock in six and haemorrhagic shock in three.

**DISCUSSION:** It is unfortunate that even after all efforts at reduction and liberalization of MTP for past 3 decades the mortality and morbidity due to septic abortion has not declined significantly. This is tragic story of our country where even after legalizing MTP in 1971, septic abortion cases are still prevalent in our society. Septic abortion is a paradigm of preventive medicine, relating to all levels of prevention- primary, secondary and tertiary.<sup>4</sup> In the past, obstetricians/gynecologists were often the experts in management of sepsis. However, those who have trained, where abortion is legal, working in urban area (dealing with mainly patients of high socioeconomic group) may have little experience with septic abortion. So management should be reviewed.

MTP a minor surgical procedure can be life threatening in cases of septic abortion. In my study 30% cases were in between age group 21-30 and 40% cases were in between 31-40 years. Studies by Meenakshi et al<sup>5</sup> and Sinha and Mishra,<sup>6</sup> have shown that septic abortions are found mostly in married women between 21-30 years of age. Also in my study, 65% of cases were from low socioeconomic group. Out of total cases 60% were from rural area. Among all cases 58 % were tribal. History of criminal interference was in 74% of cases. Also in 56% of cases gestational age was more than 18 weeks. These all datas conclude that that “safe abortion practices” are far from the reach of rural and tribal population. There is wide spread MTP training programme under different training schedule (EmOC, PGDMCH). But what is required today is that to make the client aware about safe MTP Practices. Wide spread Campaigning programme (via television, radio, news-papers, posters at public places) is required.

Which should reach at every door step communicating that abortion is a very safe method in trained hands, when performed under hygienic condition (At Government hospital). Giving the information that for safe abortion rush to the nearest Government set up, at the earliest possible weeks of gestation. More the weeks of gestation, more will be complications. Slogan should be “get your abortion done at safest place (Government hospital) by safest hand & never forget to carry back bonus in the form of post-partum contraceptive advise” Early signs of sepsis should be taught by campaigning and timely referral is must. When brought to the tertiary centre women are often in a moribund condition. Also there is non-availability of qualified doctor’s in rural areas of India. Women find locally available dais easily accessible and affordable.

Besides intensive management, broad spectrum antibiotics, (Latter on guided by culture/sensitivity) dopamine, blood transfusion and early surgical intervention can significantly improve the outcome. Surgery in the form of evacuation, laparotomy, hysterectomy was done to remove the source of infection as early as possible. Role of early surgery is controversial but studies

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by Singhal et al and Rivlin and Hunt<sup>7,8</sup> 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<sup>9</sup> 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 going on, although it is now more than 40 years since the MTP act has been promulgated. Expert's opinion is that facilities for safe, legal abortion should be made universally available.<sup>7-9</sup>

**CONCLUSION:** Complication due to septic abortion are almost entirely avoidable. 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 hospital. 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.

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