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IP Journal of Surgery and Allied Sciences

Journal homepage: https://www.jsas.co.in/

Case Report

A case report on septic abortion due to uterine and intestinal perforation

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Abstract

Septic abortion occurs due to unsafe abortion practices, which involve terminating a pregnancy that a person does not desire, often performed by individuals who lack the required skills or in settings that do not meet basic medical standards or both. The phrase 'unsafe abortion' refers to an induced abortion performed by untrained practitioners employing dangerous or unhygienic methods. Infection that is centered in the placenta has a risk of spreading to the uterus, causing pelvic infection, or if untreated, may become a systemic infection causing septicemia, which may cause potential damage to distant vital organs. Perforation is one of the serious complications due to inadequate handling of surgical instruments during curettage.

The mortality rate after voluntary termination of pregnancy (MTP) is 0.6/100,000. In India, only 10% of the total number of estimated abortions are registered or legal. Early diagnosis and prompt intervention with antibiotics and surgical evacuation may be crucial to preventing severe complications. Improvements in public health education, access to safe abortion services, and timely medical care can greatly reduce the incidence of septic abortion and its associated morbidity and mortality.

Keywords: Septic abortion, Uterine perforation, Intestinal perforation, Retained product of conception, Maternal mortality, Septicemia.

Received: 23-11-2024; **Accepted:** 30-08-2025; **Available Online**: 29-11-2025

1. Introduction

Abortion or miscarriage refers to the termination of pregnancy before a live birth of fetus. It can occur spontaneously or by induction.[1] It can be defined as the threat or expulsion of conception before the fetus can live outside the ability of the mother's womb.[2] The duration of pregnancy is also included in this definition, which may differ in different countries and according to the availability of facilities. For example, the National Center for Health Statistics, the Centers for Disease Control and Prevention, and the World Health Organization propose the cut point of an abortion to be at the gestational age of 20 weeks or with a fetus born with a weight of less than 500 grams.

One of the serious complications following the process of miscarriage is septic abortion which appears to be the most serious form. Septic abortion refers to an infection of the uterus and surrounding organs that occurs after any type of abortion, with illegally conducted induced abortions being a primary cause. The typical symptoms include a temperature increase of at least 38°C, often accompanied by tenderness in the lower abdomen and an abnormal amount of vaginal discharge.[3] Perforation is one of the serious complications following surgical abortion. A gravid uterus is soft and can be perforated due to mishandling of surgical instruments by untrained personnel. This perforation may even extend beyond the uterus and may damage the intestine, which in turn may cause sepsis. Sepsis is an inflammatory process in which the body responds to an infection. The causative agents of this condition consist of both aerobic and anaerobic bacteria, as well as the typical flora found in the vagina.[4] They may coexist with any of the retained products of conception, operative injury, or septic procedures.[5]

Despite advancements in the medical field, the rate of maternal mortality is still alarmingly high, which is a matter of great concern. Maternal mortality is just the tip of the iceberg of maternal morbidity, as for every maternal death there are more than a hundred women who have some associated morbidity. According to Chayachinda C et al.[6] Nearly 12 % of maternal deaths in India is caused by septic abortion.

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https://doi:10.18231/j.ijmpo.9085.1759467466

According to the World Health Organization (WHO), septic abortion occurs when termination of pregnancy is performed by someone who is unskilled or performs the procedure without taking any septic precautions or in an environment that does not meet medical standards or both, 13% of maternal deaths result from complications of unsafe abortion worldwide and 95% of these unsafe abortions occur in developing countries.[7]

2. Case Report

A 40-year-old, P2L2A1 with previous 1 LSCS woman was brought by her family to the emergency department of Dr. KNS Memorial Institute of Medical Sciences on 16 July 2024 with the chief complaint of pain in the abdomen, high-grade fever and blood mixed, foul-smelling discharge per vaginum (P/V) since 2 days. The patient was alright 15 days ago following amenorrhea of 3.5 months when she started complaining of bleeding per vaginum for which she visited a private clinic and underwent Dilation & Curettage (D&C) in view of incomplete abortion. She further developed a similar complaint of bleeding per vaginum for which she visited a private clinic. She underwent repeat D&C in view of retained product of conception as suggested in ultrasonography. She presented to our hospital with complaint of pain in the abdomen which was dull aching localized to the lower abdomen and gradually progressive, present throughout the day with no aggravating and relieving factors. She also had a fever that was insidious in onset, high grade, not associated with chills & rigor, had no diurnal variation and not relieved on taking any medication. She also had blood-mixed, foul-smelling discharge P/V, loose stool, and loss of appetite. She had amenorrhea for 3.5 months and her LMP was 15th May 2024.

At the time of admission, she was conscious and well-oriented with GCS score of E4V5M6. Clinically she appeared severely anemic. She had a 101°F body temperature, tachycardia with a pulse rate 120 bpm and respiratory rate of 24 breaths/min, a blood pressure 100/60 mmHg and saturation of 98% at room air. On accessing, cardiovascular and respiratory systems were normal. Abdominal examination showed tenderness in the lower abdomen (both iliac and hypogastric region), rigidity was present and on auscultation, bowel sounds were sluggish. A speculum examination revealed blood mixed foul-smelling discharge. Per vaginal examination findings showed a closed os with a uterus corresponding to 12-week size of a gravid uterus, which had tenderness on movement. Fullness in the posterior fornix extending to the right adnexa along with bilateral adnexal tenderness was seen.

Laboratory examination revealed hemoglobin of 6.8 gm/dl and a white blood cell count of 23,860 cells/mm^3. Rest other blood investigations were within normal range. ABG suggested respiratory alkalosis likely due to hyperventilation. The culture and sensitivity tests from the high vaginal swab revealed the presence of E. coli.

Transvaginal ultrasound indicated an enlarged uterus of size 10.2x7.2x3 cm. Moderate free fluid was seen in the POD with multiple internal septations measuring 6.9x6.8x3.0 cm. A heterogeneously hyperechoic lesion was seen in the uterus measuring 1.6x1.4 cm with no color uptake in the Doppler study, most likely RPOC.

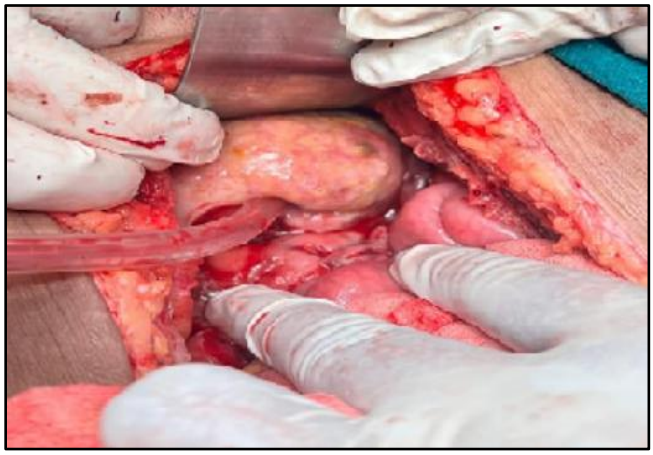

Figure 1; Showing an intraoperative picture of uterine perforation

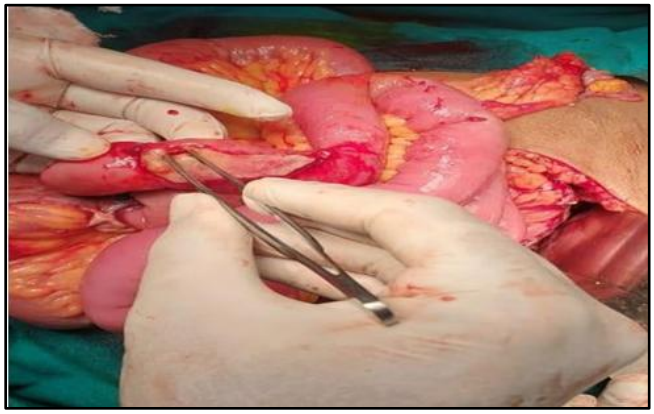

Figure 2: Showing an intraoperative picture of intestinal perforation.

Given the clinical picture, examination findings and ultrasound report, the patient was diagnosed as P2L2A1 with previous LSCS with severe anemia with septic abortion. Further management included transfusion of 2 units of PRBC. IV fluids and antibiotics were given. Exploratory laparotomy under general anesthesia was planned. After explaining the prognosis of the patient, written and informed consent was taken. Intraoperatively, dense adhesions were seen between the bowel and anterior wall of the uterus due to which the uterus could not be reached. Adhesiolysis was done by blunt dissection. Uterine perforation and intestinal perforation were identified. The size of the uterine perforation was 2x2 cm which was present on the fundus and bowel perforation, marked at 120 cm from the ileocecal junction was present .The perforation was repaired in 2 layers. Postoperatively patient was kept NPO for 5 days and I.V. antibiotics were given. She was monitored by both the departments of Obstetrics and Gynaecology and General

Surgery. Two units of PRBC were transfused. The patient was monitored and serial dressings were done. She attained her bladder bowel functions adequately by the 6th postoperative day and the patient was discharged on the 8th day on oral antibiotics and supportive medication.

3. Discussion

The infection of the placenta and fetus (conception outcome) of a pre-viable pregnancy is known as septic abortion. The infection which is centered in the placenta has a risk of spreading to the uterus, causing peritonitis and pelvic infection or if untreated may become a systemic infection leading to septicemia which may potentially cause damage to distant vital organs. This can quickly become a dangerous and even lethal infection if left untreated.[8]

Abortion to date is considered a social stigma and is often still misunderstood by women and men. Many women till date believe that abortion is rare and occurs when a pregnant woman lifts heavy weight or due to the use of contraceptives before pregnancy. Which in turn makes both women and their partner feel guilty when an abortion occurs and prevents them from seeking help or appropriate management.[9] This inadequate handling in turn may lead to serious complications, of which perforation of the uterus and its adjacent structures is very common. Uterine fundus perforation is the usual site of perforation and is mostly caused while introducing cervical dilators as the gravid uterus is soft.

In this case, it was known that the patient had a fever, abdominal pain and foul-smelling vaginal discharge following dilation and curettage. Per operative findings revealing uterine and intestinal perforation indicated that these were the causes of sepsis in this patient.

4. Conclusion

There is a high need to draw attention towards the knowledge of septic abortion as the incidence of its case remains large despite advancement in medical field. Septic abortion remains a significant healthcare concern, particularly in settings where access to safe abortion services is limited. Early diagnosis of complications and prompt intervention with antibiotics and surgical evacuation are crucial to preventing severe complications. Improvements in public health education, proper training of health care workers to use instruments and timely medical care can greatly reduce the incidence of septic abortion and its associated morbidity and mortality. The septic-induced abortions are preventable and only need a definitive commitment to women's health. Prompt diagnosis of septic complications and their effective treatment at tertiary hospitals would avoid serious consequences.

5. Source of Funding

None.

6. Conflict of Interest

None.

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Cite this article: Pandey M, Singh S, Gupta B. A case report on septic abortion due to uterine and intestinal perforation. *IP J Surg Allied Sci.* 2025;7(3):102-104.