International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Sahoo I et al. Int J Reprod Contracept Obstet Gynecol. 2026 Aug;15(8):3228-3231
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20262561

Case Report

Unexpected uterine rupture in first trimester: a life-threatening occurrence

Ipsita Sahoo[1]*, Mahesh Behera[2]

[1]Department of Obstetrics and Gynaecology, Command Hospital, Bangalore, Karnataka, India
[2]Department of Surgery, Command Hospital, Bangalore, Karnataka, India

Received: 21 May 2026
Accepted: 17 June 2026

***Correspondence:**
Dr. Ipsita Sahoo,
E-mail: ipsisahoo1984@gmail.com

ABSTRACT

First trimester uterine rupture is a rare occurrence but does occur in a setting of previous surgeries on uterus and uterine anomalies. A high index of suspicion and timely management is paramount to avoid disastrous outcome. Here, we report the case of a 34-year-old female at 13 weeks of gestation, with history of previous two caesarean section, who presented to our emergency department with acute pain abdomen and in a state of hypovolemic shock. Immediate laparotomy was done which revealed uterine rupture at site of previous scar and hemoperitoneum of 2 litres. Uterine repair and bilateral tubectomy was done. She was transfused blood and blood products postoperatively and recovered well.

Keywords: Uterine rupture, First trimester, Caesarean section

INTRODUCTION

Rupture of a pregnant uterus is one of the most dreaded complications encountered in obstetric practice. It is classified as complete or partial separation of the uterine layers and can be a life-threatening event for both mother and baby, especially in complete form. The incidence of uterine rupture is 1 in 4800 deliveries in developed countries and rupture of unscarred uterus is as few as 1 in 10,000-15,000 births.[1] The overall incidence of rupture uterus in women with previous caesarean section varies between 0.3 to 1 percent.[2] Uterine rupture mostly occurs in late pregnancy or active labour. Its occurrence in first trimester of pregnancy is rare.

The first case of spontaneous early pregnancy scar rupture was published in 1982 in Denmark.[3] Clinical suspicion of uterine rupture is essential in early pregnancy in women with history of previous uterine scar and who present with acute abdomen and unstable vital parameters. Differential diagnosis includes ruptured ectopic pregnancy, ruptured corpus luteal cyst or molar pregnancy with secondary invasion. High index of suspicion, early diagnosis and timely management is the key to reduce serious maternal morbidity and mortality. Uterine rupture is managed surgically with exploratory laparotomy and repair of scar; in few cases hysterectomy is often resorted to. We report a rare case of uterine rupture at 13 weeks of gestation in a 34-year-old woman with history of previous 2 caesarean sections.

CASE REPORT

A 34-year-old female (gravida 5, para 2, live 2, abortion 2) with previous two caesarean section status presented to emergency department of our hospital with history of amenorrhoea of 3 months and generalised pain abdomen since past 4 hours. She was an unbooked case and no prior blood investigations or ultrasonography was available. Only urine pregnancy test was done 10 days earlier in a private hospital and found positive. Patient had undergone first caesarean section 5 years back for breech presentation and second cesarean was done 2 years back for post cesarean status. Both of them were lower segment cesarean section (LSCS). She had history of one medical

abortion and one surgical abortion (dilatation and curettage done one year back).

On presentation, the patient had severe pain abdomen since past 4 hours, diffuse, dull aching in character, more in the pelvic region. There was history of bleeding per vaginum and soakage of two vulval pads. Also, there was an episode of syncopal attack at home. There was no history of trauma to abdomen or coitus. She denied history of passage of blood clots or fleshy mass per vaginum. On admission, her general condition was low. Pulse rate was 118 beats/min, blood pressure 86/40 mm Hg and gross pallor seen. Abdomen was slightly distended and tender. Per speculum examination revealed bleeding through os. Urgent bedside ultrasound showed intraabdominal free fluid and single intrauterine fetus of CRL 13 weeks. Hemoglobin was 8 g% and blood group was O positive.

Immediate fluid resuscitation was done in emergency department with 1.5 litres of Ringer lactate. Patient underwent urgent exploratory laparotomy under general anaesthesia. Approximately, 2000 ml hemoperitoneum was found. 700 ml blood clots were evacuated (Figure 1). The uterus had ruptured transversely at site of previous scar (Figure 2) and the fetus within amniotic sac was seen extruding through the uterine scar defect (Figure 3). On removing the amniotic sac, a linear scar approx. 5 cm long was seen in the uterus at site of previous LSCS. It had ragged margins and bleeding edges. The amniotic sac was intact with fetus of 13 weeks gestation in situ (Figure 4). The ruptured scar was repaired in double layer with vicryl no. 1 suture in a continuous interlocking manner (Figure 5). Adequate hemostasis was ensured. Bilateral tubectomy was done by modified Pomeroy's method with vicryl rapid 2-0 suture (consent for permanent sterilization was given preoperatively).

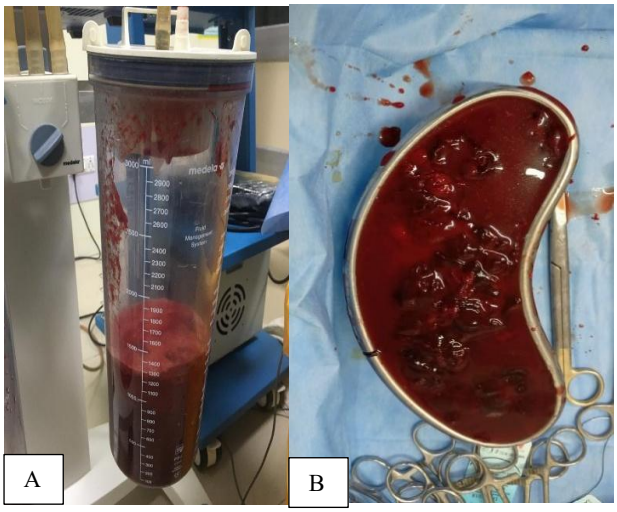

Figure 1 (A and B): Blood in suction apparatus and blood clots removed.

Peritoneal lavage was done with one litre warm normal saline. Intrabdominal drain was placed and abdomen closed in layers. Patient was kept in ICU for 4 days. During intraoperative and postoperative period, she was transfused 4 units PRBC and 4 units of FFP. Broad spectrum antibiotics (Inj. Cefotaxime 1 gm IV twice daily, Inj. Amikacin 500 mg IV once daily and inj. Metronidazole 500 mg IV thrice daily) were given for 5 days. Drain was removed after 3 days. Patient recovered well and was discharged in good health after 7 days with postoperative hemoglobin of 10.6 g%.

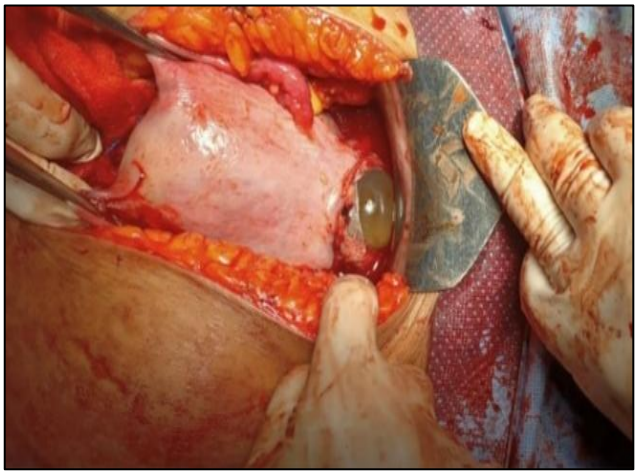

Figure 2: Uterine scar rupture seen.

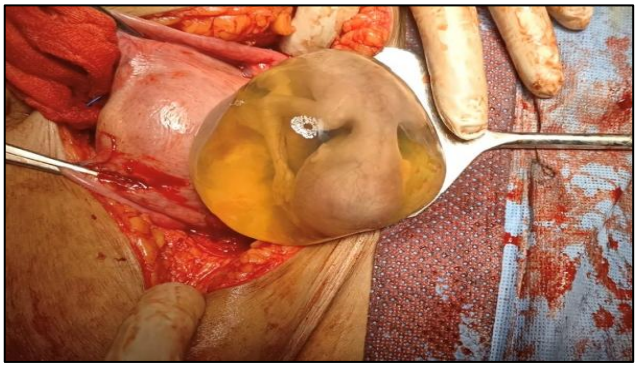

Figure 3: Amniotic sac extruding from ruptured site.

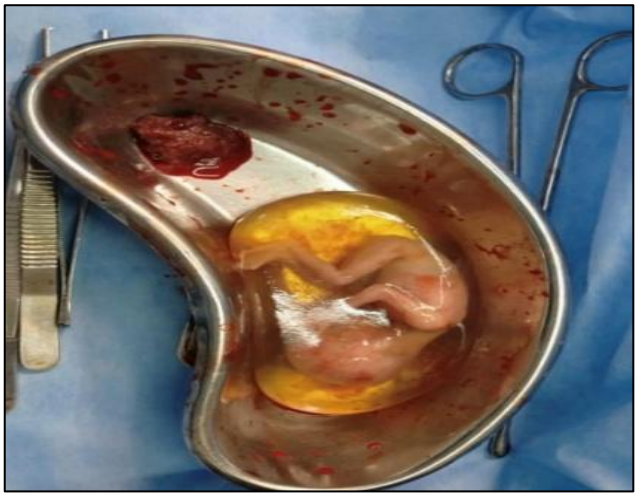

Figure 4: Amniotic sac with fetus of 13 weeks.

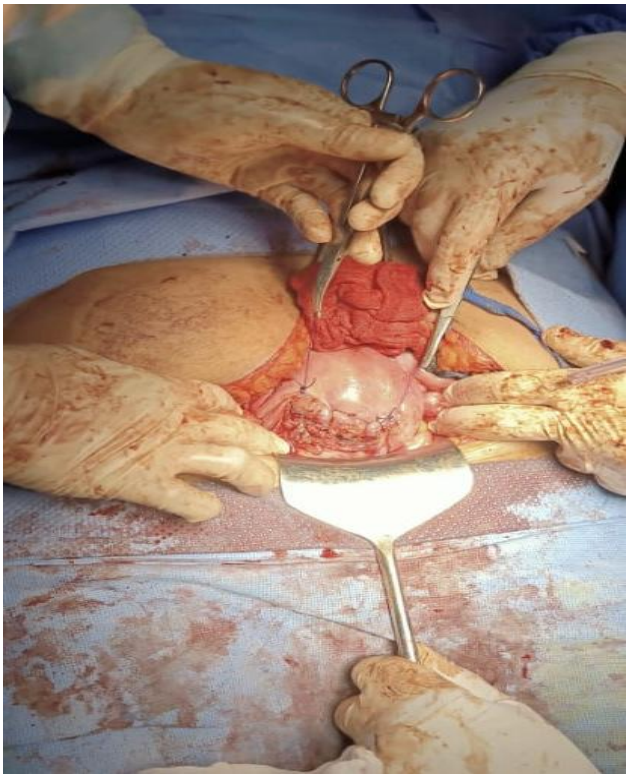

Figure 5: Uterine scar repaired in two layers.

DISCUSSION

Uterine rupture accounts for 14% of all hemorrhage related maternal mortality.[4] Most often uterine rupture occurs in the third trimester of pregnancy, during labour, or mainly in a previously scarred uterus. Its occurrence in early pregnancy is very rare even in the presence of predisposing risk factors.[1,5] However, this diagnosis should be considered in any patient in first trimester with history of previous cesarean section and presenting as acute abdomen and hemodynamic instability. Other risk factors for uterine rupture include placenta previa, placenta accreta, high parity, advanced maternal age, history of endometriosis, uterine anomalies, dilatation and curettage, myomectomy, gestational trophoblastic disease and pelvic irradiation.[6,8]

Uterine rupture typically is classified as either (i) complete when all layers of uterine wall are separated (ii) incomplete when the uterine muscle is separated but the visceral peritoneum is intact.[1] Incomplete rupture is also commonly referred to as uterine dehiscence. As expected, morbidity and mortality rates are appreciably greater when rupture is complete. The greatest risk factor for either form of rupture is prior cesarean delivery.

Rupture uterus is a dangerous incidence because of sudden and massive bleeding. Sun et al reported a multiparous woman at 17th week of gestation with spontaneous uterine rupture admitted with hemorrhagic shock. Surve et al reported a second gravida female with previous two caesarean section status at 10 week gestation presenting in hypovolemic shock and found to have uterine rupture. Similar findings were seen in our patient. As per literature, most patients underwent emergency laparotomy because of copious intra-abdominal bleeding. Our patient also underwent exploratory laparotomy and found to have uterine rupture and hemoperitoneum of 2 litres.

Management involves conservative surgery to repair the uterine defect. Hysterectomy should be considered based upon extent of damage, surgical skill and patient's clinical stability. Bilateral tubal ligation is also advised given the recurrence risk of uterine rupture in subsequent pregnancies which is 4 to 19%.[6] In our case, we were able to do uterine repair and achieve good hemostasis. Since the patient had two living children and had consented for sterilization, bilateral tubectomy was also done.

CONCLUSION

Uterine rupture in first trimester of pregnancy is a rare and life-threatening occurrence. This entity should be considered in patient with previous uterine scar presenting as acute abdomen or in shock. Prompt diagnosis and early intervention is the key to reduce maternal morbidity and mortality.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS. Obstetrical hemorrhage. In: Cunningham FG, Gant NF, Leveno KJ, Gilstrap III LC, Hauth JC, Wenstrom KD (eds). Williams obstetrics. 24th ed. New York: McGraw-Hill. 2014;617-8.
2. Porreco RP, Clark SL, Belfort MA. The changing specter of uterine rupture. Am J Obstet Gynecol 2009;200(3):269.e1-4.
3. Helkjaer PE, Petersen PL. Rupture of the uterus in the 11th week of pregnancy. Ugeskr Laeger. 1982;144:3836-7.
4. Tripathi S, Srivastava S, Gupta S, Gupta R, Gupta N. First trimester uterine rupture- a rare but catastrophic event: a case report. Int J Reprod Contracept Obstet Gynecol. 2023;12(6):1932-34.
5. Abbas AM, Hussein RS, Ali MN, Shahat MA, Mahmoud AR. Spontaneous first trimester posterior uterine rupture in a multiparous woman with scarred uterus: A case report. Middle East Fertil Soc J. 2018;23:81-3.
6. Tola EN. Hindawi Publishing 2014. First Trimester Spontaneous Uterine Rupture in a Young Woman with Uterine Anomaly. Case Rep Obstet Gynecol. 2014;2014:967386.
7. Smith L, Mueller P. Abdominal pain and hemoperitoneum in the gravid patient: A case report of placenta percreta. Am J Emerg Med. 1996;14:45-7.

8. Liang HS, Jeng CJ, Sheen TC. First- trimester uterine rupture from a placenta percreta. A case report. J Reprod Med. J. Reproduct Med. 2003;46:474-8.

Cite this article as: Sahoo I, Behera M. Unexpected uterine rupture in first trimester: a life-threatening occurrence. Int J Reprod Contracept Obstet Gynecol 2026;15:3228-31.