International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Sunita S et al. Int J Reprod Contracept Obstet Gynecol. 2025 Aug;14(8):2762-2764
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20252356

Case Report

A rare case of fundal rupture of uterus at term with placental blood supply from omental vessels in a tertiary care centre

Sunita S.*, Pradeep M. R.

Department of Obstetrics and Gynaecology, Chamarajanagar Institute of Medical Sciences, Chamarajanagar, Karnataka, India

Received: 03 March 2025
Accepted: 02 April 2025

***Correspondence:**
Dr. Sunita S.,
E-mail: sunifrn@gmail.com

ABSTRACT

Uterine rupture is one of the rare causes of obstetric hemorrhage with high incidence of fetal and maternal morbidity. The global prevalence of uterine rupture is 0.3-2.9%. The etiology for rupture in early decades was neglected labor, with passing years newer causes of uterine rupture have been added like previous cesarean delivery, uterine curettage, myomectomy, anomalies in uterus, etc. The most common site of uterine rupture is at the scar site of previous caesarean and the rupture may occur spontaneously or during labour, at the same time some unusual sites of rupture of uterus sparing the cesarean scar have also been documented in the world. We have incidentally detected a case of fundal rupture of uterus when we were performing emergency lower segment caesarean section for a term patient with previous lower segment caesarean delivery who came to us in labour without any imminent features of rupture. The rupture site was sealed by omentum and placenta was taking blood supply from omental vessels, there was no fresh bleeding from scar site. Omentum dissected from uterus, and rent was closed in two layers. Atonic PPH was encountered hence subtotal hysterectomy was done. The objective of this discussion is to raise awareness about the atypical appearance of uterine rupture and its consequences.

Keywords: Uterine rupture, Hemorrhage, Scar, Cesarean, Omentum

INTRODUCTION

Uterine rupture is one of the uncommon events that leads to potentially catastrophic haemorrhage. Rupture may be primary, when happens on previously intact or unscarred uterus. More often rupture is secondary when associated with preexisting incision on uterus, uterine anomaly, or injury of the myometrium. It has an incidence ranging from 0.006% in developed countries and 0.38% in developing countries.[1]

The contribution to the causation of rupture has evolved over years. In industrialised countries, rupture is seen mainly in patients with previous caesarean delivery. Whereas, in resource poor countries, obstructed labour, injudicious use of oxytocics, instrumental deliveries, poor access to health care are some of the risk factors.[2] Rarely it can happen due to Ehlers Danlos syndrome, cocaine abuse, in utero exposure to diethylstilbesterol.[3]

It is rare to find a site of rupture away from previous scar. We have evidenced a rare case of fundal rupture of the uterus carrying successfully growing foetus inside, till term. The omentum along with the feeding vessels was covering the old rent and the placenta was taking blood supply from omentum evidencing the underlining fact and age old saying "omentum is the policeman of abdomen" thus masking the clinical features of uterine rupture and the clinical picture was not meeting the criteria of abdominal pregnancy.

CASE REPORT

A 29-year-old lady G2P1L1 with previous caesarean delivery done 5 years ago for CPD had normal post

operative course presented now at 37 weeks 2 days gestation to our hospital with intermittent pain abdomen from 4 hours. She was perceiving good fetal movements. She had no history of abortions/ uterine curettage or uterine surgeries/repair in the past. On examination she was conscious and cooperative, she had no pallor/icterus/edema. Pulse rate 86 bts/min, BP-120/74 mmhg, SpO_2-98%, abdomen examination revealed singleton live intrauterine gestation cephalic presentation FHS-140 bts/min, liquor adequate. uterus was irritable relaxing in between maintaining normal contour and no scar tenderness. Per vaginal examination done showed no bleeding, soft cervix, 1.5 cm dilated, 2 cm long with intact membranes and contracted pelvis with bishop's score of 6. USG in last trimester showed anterior and fundal placenta with no signs of accreta.

Patient was taken for emergency LSCS as previous caesarean section in labour, Pfannenstiel incision was put, and abdomen opened, there were dense adhesion bands between anterior abdomen wall and uterus, also omental adhesions noted and the same released. Kerrs incision put in the lower segment and delivered a 2.9 kg alive female baby by vertex presentation. liquor was clear. APGAR score was 1"-8, 5"-9. After the placental separation, while removing the placenta and membranes, accidentally bowel loops were visualised through uterine cavity, uterus was carefully exteriorised; omentum was adherent to the uterine fundus with feeding vessels and bowel loops were seen entering the uterine cavity through a rent of about 8×5 cm at the fundus of the uterus as shown in (Figure 1). The edges of rent were clean and blunt with no fresh bleeding which was suggestive of an old rupture (Figure 2).

Adhesions were released; bowel loops pushed back to abdomen and the rent was closed in 2 layers by continuous interlocking sutures (Figure 3). We encountered atonic PPH, uterotonics were given. Bleeding could not be controlled by medical management and BP dropped to 70/50 mmHg hence we proceeded with subtotal hysterectomy and vault was closed. At the end bowel was explored and there were no injuries/bleeding. 3 pints PRBCs, 2 pints FFPs and 3 pints platelets were transfused intra-op and post operatively. Patient was stabilised and abdomen was closed. Post operative period was uneventful and was discharged on day 10.

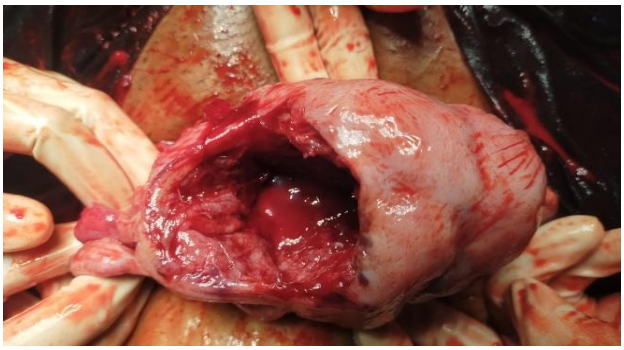

Figure 1: Rent in the uterine fundus with blunt edges.

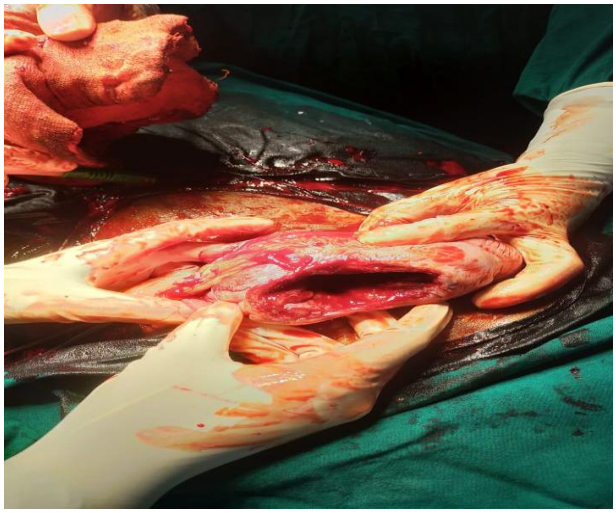

Figure 2: No active bleeding from rupture site.

Figure 3: Specimen of hysterectomy with repaired fundal rupture.

DISCUSSION

Rupture uterus is one of the serious obstetric emergencies which leads to grave sequelae for both mother and the baby. Common causes of uterine rupture in a scarred uterus are previous caesarean delivery, myomectomy, cornual ectopic site reconstruction etc. Causes of uterine rupture in an unscarred uterus are grand multiparas, contracted pelvis, malpresentations, obstructed labour, injudicious use of oxytocics, instrumental deliveries, poor access to health care are some factors. Rare causes are due to inherent defects in the myometrium.

Uterine rupture 0.2-0.6% and 2% respectively for unknown scars and low transverse incisions. Whereas for T shaped and classical cesarean incisions the incidence rate is 4-9%. There is reduction in the number of spontaneous ruptures due to a greater resort to caesarean delivery in the present world. At the same time scar

ruptures have increased due to an attempt at vaginal delivery in cases of previous caesarean delivery.[4]

When the literature was reviewed, we found multiple cases of scar rupture in previous caesarean cases but spontaneous ruptures without scar were selective.

Spontaneous rupture can happen anytime even as early as 1st trimester.[5] A case of 12 weeks of pregnancy with previous two vaginal deliveries without any risk factors has been published. Two breaches were identified in the right posterior uterine wall and was repaired. Two more cases were at 30 weeks and 20 weeks, laparotomy revealed massive hemoperitoneum and fundal rupture. there was also placenta accreta for which patients were subjected to subtotal hysterectomy.[5]

Although it is rare to find the site of rupture away from caesarean scar where patient was not in labour, few cases have been reported. One of such initial case reported was at university teaching hospital Africa. the rupture was at the left lateral border of the uterus away from the previous caesarean scar. Rupture was detected after the vaginal delivery of the live baby as compared to our case where it seems to have happened in antepartum.[6] Another case of fundal rupture with intact previous LSCS scar is reported at lady Harding hospital Delhi. patient had signs of rupture and laparotomy revealed a rupture of 2x2cm in anterior wall of uterus and placenta was seen through the rent and the same was repaired.[7]

In our case it was fundal rupture of 8cm it was sealed by omentum masking the classical picture of rupture. there was no hemoperitoneum and the liquor was clear. we are not able to trace the cause for rupture. patient had no risk factors apart from previous caesarean scar. It might be due to inherent deficiency of myometrium or unknown cause also not able to trace the timing of rupture, this is a rare type of pregnancy where there is a uterine rupture and baby grown to term getting a blood supply from omentum.

CONCLUSION

uterine rupture is a major contributor to maternal and neonatal morbidity and mortality. It can be predicted on patients with previous caesarean delivery or any procedure on the uterus and they exhibit classical symptoms. When the presentation is unusual, it becomes challenging to the obstetrician to deal with. Spontaneous uterine rupture of unscarred gravid uterus and rupture at unusual sites sparing the caesarean scar is rare, further studies are required to determine the aetiology of myometrial defects in these cases.

The purpose of discussing this case is to raise awareness about the atypical presentation of uterine rupture and its implications.

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

REFERENCES

1. Hofmeyr GJ, Say L, Gulmezoglu AM. WHO systematic review of maternal mortality and morbidity: The prevalence of uterine rupture. BJOG. 2005;112(9):1221-8.
2. Berhe Y, Wall LL. Uterine rupture in resource poor countries. Obstet Gynecol Surv. 2014;69(11):695-707.
3. Mizutamari E, Honda T, Ohba T, Katabuchi H. Spontaneous rupture of an unscarred gravid uterus in a primigravid woman at 32 weeks of gestation. Case Rep Obstet Gynecol. 2014;2014:209585.
4. Devabhaktuni P, Allani P, Maheen F. Changing trends in uterine rupture audit, from the Institute of obstetrics and gynecology, modern government maternity hospital, Osmania medical college. Int J Reprod Contracept Obstet Gynecol. 2020;9:3631-7.
5. Chen Y, Cao Y, She J-Y, Chen S, Wang P-J, Zeng Z, et al. Spontaneous rupture of an unscarred uterus during pregnancy: A rare but life-threatening emergency: Case series. Medicine. 2023;102:24(e33977).
6. Nkwabong E, Bechem E, Nana PN. Rupture of a scarred uterus without involvement of the previous lower segment uterine scar: A case report. Internet J Gynecol Obstetr. 2013;17(2):1.
7. Lal P, Chopra K, Dhar S, Tayal P, Kavita. Uterine Rupture with an intact scar-An unexpected catastrophe. J Obstetr Gynecol Reproduct Sci. 2021;5(1):1-2.

Cite this article as: Sunita S, Pradeep MR. A rare case of fundal rupture of uterus at term with placental blood supply from omental vessels in a tertiary care centre. Int J Reprod Contracept Obstet Gynecol 2025;14:2762-4.