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Spontaneous uterine rupture during early pregnancy: Case report

Mathur Neha Satyaprakash*, Chetna Agarwal

Corresponding author: *Mathur Neha Satyaprakash.

Abstract

Uterine rupture in unscarred uterus is rare, especially in first trimester. This is a case of a multigravida with history of previous curettage, presented at emergency as a case of hypovolemic shock and suspected ectopic pregnancy. On laparotomy, it was found to be rupture at fundus. High index of suspicion is vital especially in pre-existing risk factors.

Keywords: Uterine rupture, First trimester

Introduction

Uterine rupture is a tear in the uterine wall involving its full thickness, resulting in the formation of a defect in the uterine wall and massive haemorrhage. The major risk factor is previous scarring of uterus in the form of Caesarean section or myomectomy. Although it can occur in unscarred uterus as well[1].

Clinically it presents as surgical emergency and can lead to haemorrhagic shock and maternal death. The maternal prognoses most of the time is bad, especially if rupture occurs in an unscarred uterus [2,3].

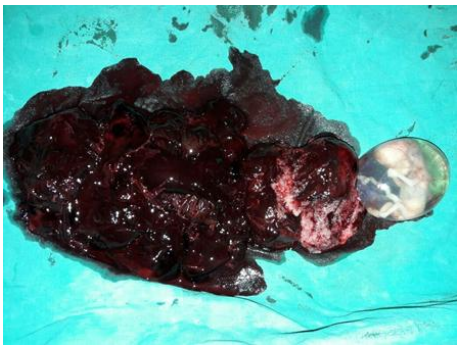
First trimester uterine rupture is extremely rare and documented only in congenitally abnormal uterus[4,5]. It can easily be confused with ruptured ectopic pregnancy, as the clinical and ultrasound picture are similar, although it is grave in the previous.

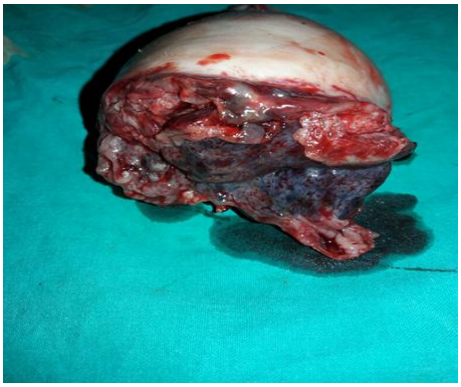
Case

We are presenting a case of 32 yrs old female. She is gravida 6, with previous 4 full term normal deliveries and two abortions. The last one was 6 months back. She presented in the emergency department with history of 2 months amenorrhea followed by complaints of abdominal pain and bleeding pv since past 2 hrs. On examination she presented in semiconscious state, was pale with blood pressure of 90/50, pulse rate of 198/min. On abdominal examination, there was a generalised distension; exact contour of uterus could not be felt. Local examination was done, bleeding was seen coming from cervicalos, and uterus was enlarged to 12 weeks size and tenderness and fullness felt in all fornices. On ultrasound, 12 weeks gestational sac with no cardiac activity seen in left adnexa, massive haemoperitonium. Blood investigations, Hb- 4 gm%, blood group was O negative, HIV/HBsAG – negative.

Emergency management was done, 3 PBC were arranged. Informed written consent was taken and emergency laparotomy was planned. On opening the peritoneal cavity, massive blood clots and blood was drained. The uterus appeared ruptured at the fundus with the sac of fetus lying over the ruptured

part. Bilateral adnexa appeared normal. With due consent obstetric hysterectomy was performed. Patient was kept in ICU for 1 day, and along with antibiotics, 4 PRC and 3 FFP were transfused. She was discharged on day 5 and sutures were removed on day 8.





Discussion

Rupture of a gravid uterus is one of the worst obstetric emergencies in which the life of the mother is in danger. The incidence ranges from between 0.2 to 0.6 %.[6]. The incidence in unscarred uterus is less to one in10,000 pregnancies in the most-developed countries[7].Rachagan et al. reported a incidence that varied from0.3/1000 to 7/1000 [8]. Sun et al. reported a rate of 0.012%[9].

The most important risk factors for unscarred uterine rupture are multiparity, the inappropriate use of oxytocin, uterine over-distention due to the presence of twin pregnancy, previous curettage, and congenital anomalies. The past history of curettage, diagnostic or operative hysteroscopy, can suggest an unknown uterine perforation leading to rupture[6].Multiparity can also be an independent risk factor[10]. Uterine rupture in early pregnancy is most of the times associated with congenital malformation of uterus[11]. In literature, rare cases of adenomyosis and patients with cocine abuse have also been reported as risks for unscarred cases[12,13].

In the index case, we came across two of the aforementioned risk factors viz multiparity and previous history of curettage. This case presented at a very early stage of pregnancy thus was confused with ruptured ectopic pregnancy.

Conclusion

Rupture of the non-labouring uterus is rare and life threatening event. Spontaneous ruptures are almost always intrapartum with some pre-existing risk factors.

In our cases, the patients had previous episodes of uterine curettage. This could have created a scar from previous unnoticed perforation. The site of rupture was at the fundus of uterus, which may be probable site of perforation. A hypothesis by Bevan et al states that, such sites are embedded by product of conceptions and later due to stretching effect of advanced pregnancy, it ruptures[14]. This does not hold exactly true in the index case, as the pregnancy was early and stretching effect was not created.

Thus previous history of minor procedures on the uterus can have an impact on the current obstetric life of patient in the form of uterine rupture not only in labour but also in very early pregnancy. A high index of suspicion is required in cases of haemorrhagic shock.

Uterine rupture should always be included in the differential diagnosis of pregnancy women with acute abdomen irrespective of the gestational age.

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