

Silent Uterine Rupture: A Rare Case

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Case Report

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Abstract: Uterine rupture is a catastrophic complication with a high incidence of fetal and maternal morbidity and mortality. It commonly presents with patient clinically in a state of shock, with compromised fetal and maternal outcome; with a previously scarred uterus. But rupture of the uterus in a primigravida with no high risk factors and no obvious signs is extremely rare. Herewith we report a case of primigravida with 34 weeks pregnancy, which came to the emergency department, with no high risk factors admitted with complaints of acute abdominal pain, relatively stable vital signs, no labour pains, and normal fetal heart rate. She had got an ultrasound done on the same day morning, suggestive of a large haemorrhagic ovarian cyst with severe oligohydramnios. Laparotomy was timely done with a differential diagnosis of ovarian cyst torsion. A single, live female baby, 2.2 kg was delivered by Lower Segment Caesarean Section. Surprisingly, on further exploration and exteriorization of uterus, it revealed a full thickness rent in the fundus of uterus. Both ovaries were normal. Blood clots about 50-80 cc were removed. Successful conservative operative procedure was done on the rare and dangerous ruptured uterus by suturing it back in two layers.

Keywords: Uterine rupture, shock, pregnancy, ovarian cyst.

INTRODUCTION

Rupture of a pregnant uterus is one of the life-threatening and rare complications encountered in obstetric practice. Uterine rupture is a public health problem in developing countries.

There are several risk factors associated with rupture of uterus, but the most common is a previous Cesarean section. When it is spontaneous, it occurs most often during labor in a context of scarred uterus. Rupture of an unscarred uterus is a very rare event. The diagnosis is not always obvious and maternal and fetal morbidity and mortality is still high. Here we report a case of uterine rupture in a 34 weeks primigravida, who was explored with a clinical suspicion of torsion of ovarian cyst.

CASE REPORT

A 25-year-old patient, gravida 1, 34 weeks of gestation was admitted to the hospital with complaints of acute onset of abdominal pain since 8-10 hours, and 2 episodes of vomiting since then. There was no associated bleeding per vaginum or reduced fetal movements.

Her general medical history revealed no diseases or allergy. She had regular obstetric care and a twenty week ultrasound without noted uterine or placental anomalies. Antenatal profile was normal. She had no reported history of abdominal trauma, drug use,

smoking, or elevated blood pressures. She was not on any medications other than prenatal vitamins. Her surgical history was significant only for a prior laparoscopic surgery for tubal ectopic pregnancy.

She was referred with an ultrasound done on the same day suggestive of a single live intrauterine pregnancy of 34 weeks gestation with oligohydramnios (AFI 4), with a large haemorrhagic ovarian cyst of 9 cm X 10 cm. The hematological checkup gave a haemoglobin of 9.5 g/dl, with leucocytosis (WBC=15,500/ccm).

On examination, the patient was anxious, hemodynamically stable without pallor or abdominal tenderness or peritoneal signs. Normal fetal heart rate was noted. Non stress test was also reassuring at the time of admission. There were no uterine contractions. But diffuse tenderness was present all over the abdomen. Vaginal examination revealed a closed cervix and no effacement or dilatation or bleeding.

With a provisional clinical diagnosis of ovarian torsion, the patient was taken to the operating

room for emergency lower segment Caesarean section. At the opening of the abdominal wall, hemoperitoneum was noted of about 60-80 cc. A transverse incision was taken on the lower uterine segment. After amniorexis, liquor was scanty, clear. A live female fetus of 2250 g was delivered. The baby cried at birth. The transverse uterine incision was sutured in 2 layers. Further

inspection and exteriorization of the uterus was done, in search of the large ovarian cyst. However, surprisingly both the fallopian tubes and ovaries were normal. But there was seen a fundal uterine rupture on the left size of 3cm X 4cm size; involving all layers of the uterus, upto the endometrium (fig.1).

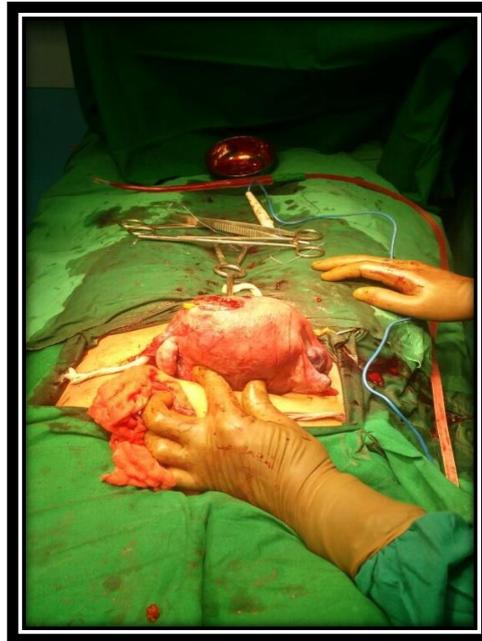


Fig-1: Ruptured Uterus

The ipsilateral uterine pedicle was intact. Bleeding from its edges was noted. There were no anomalies in the uterus. Repair of the laceration was performed in two layers (fig.2). No other complications were noticed during the operation and estimation of

blood loss was about 1150 mL. The patient received no blood transfusion and was discharged along with the baby after 9 days of postoperative hospitalization without any complications.

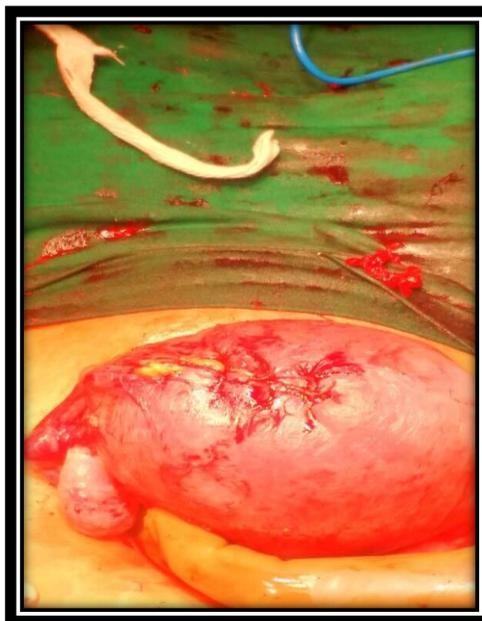


Fig-2: Suturing done with Vicryl No.1

DISCUSSION

A silent or quiet rupture presents without initial dramatic signs and symptoms often with only a rise in maternal heart rate, pallor and slight abdominal pain. It is difficult to diagnose uterine rupture in unscarred uterus during pregnancy before on set of labor pains as premonitory symptoms and signs are inconsistent. Early decision is needed for definitive treatment to save mother and fetus.

There are several risk factors associated with rupture of uterus. While our patient did not present with these risk factors, like previous Caesarean section, prior myomectomy, overdistension, multiparity >4, injudicious use of oxytocin and prostaglandins for induction of abortion or labor or forcible external version, fall or blow to abdomen, trauma due to uterine curettage, malpresentations especially transverse fetal position, cephalopelvic disproportion, abnormal placentation, and uterine abnormalities but the most common is a previous Cesarean section [1]. Impaired collagen synthesis have also been implicated either secondary to chronic steroid use or known collagen synthesis disturbance such as Ehlers Danlos disease which causes ruptured uterus. This patient had no known risk factors for ruptured uterus.

Rupture of an unscarred uterus is a rare event involving 1: 17,000–20,000 deliveries [2]. Of cases reviewed with uterine rupture in an unscarred uterus available through the literature, the rupture site is most often located at the fundus or the cornua [3].

Signs of early uterine rupture may be harder to distinguish due to nonspecific symptoms. While many women present to the providers with vague complaints of non-specific abdominal pain, uterine rupture is not often high on the list of differentials. Indeed, it is not always easy to distinguish it with other abdominal emergencies (appendicitis, gallstones, pancreatitis, etc.) [4]. Importance should be given to abdominal pain and digestive disorders. In all cases of abdominal pain in pregnancy, the fetal status must be systematically checked. In some cases the rupture of gravid uterus has no obvious cause.

In the case series of 40 uterine ruptures, Schrinky and Benson [5] found ten spontaneous ruptures without any predisposing factors. The case presented here emphasizes the possibility of uterine rupture, even in women with unscarred uterus and before labour. Uterine rupture of an unscarred uterus is associated with significant morbidity and mortality. Schrinky and Benson [5], in their study, found a maternal and fetal mortality rate of 20.8% and 64.6%, respectively.

Early surgical intervention is usually the key to successful treatment of uterine rupture [4]. The therapeutic management is a total or subtotal

hysterectomy. The suture can be performed [4] and helps to preserve the reproductive function of patients who have never given birth with a recurrence risk of uterine rupture assessed between 4 and 19% at a subsequent pregnancy [6]. For this reason, it has been recommended that women with a previous uterine rupture undergo an elective Caesarean delivery as soon as fetal lung maturity can be demonstrated [7].

A similar case of ruptured uterus in primigravida at term who was not in labour was reported by Walsh *et al.* [8]. Rupture of the uterus was diagnosed intraoperatively after patient was taken for emergency laparotomy in view of worsening maternal condition. Uterus was repaired in two layers and patient did well post operatively.

While not all patients with abdominal pain in pregnancy require extensive work-up, this case offers teaching opportunities to increase the differential diagnosis for persistent abdominal pain in the pregnant setting.

CONCLUSION

Any pregnant lady who complains of severe pain should be evaluated properly and take early decision to save the mother and baby. Importance should be given to the pain symptoms that can guide the diagnosis especially in a woman with no particular history. Measures aimed at reducing the high maternal and perinatal mortality and morbidity associated with uterine rupture include health education of the masses, proper antenatal care, early referral of at-risk patients, and supervised hospital delivery.

While the ultimate cause of rupture still remains unclear in this patient, our suspicion leans towards previous laparoscopic procedure for left tubal ectopic pregnancy based on the location of the uterine rupture at the time of laparotomy which was also near the left cornu. After further evaluation of the previous laparoscopic surgery done for left tubal ectopic pregnancy, by going through the video CD of the surgery, it was noted that cauterization was done at the fundus near the left cornu for minimal oozing. This area was similar to the region where fundal rupture was noted during LSCS.

Knowing this, it may be opined that suturing of the bleeding site would have been helpful rather than cauterization.

We report this case to highlight the fact that although rupture uterus is a very rare complication in primigravida, it can occur it and it should be included in the differential diagnosis of acute abdominal pain in pregnancy. Not only should it be diagnosed, but also treated promptly as it results in significant maternal as well as fetal morbidity and mortality.

CONFLICT OF INTERESTS

The authors declare no conflict of interests.

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