Rupture of the 'unscarred' uterus at 35 weeks

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Abstract

25-year old woman presented with abdominal pain in her second pregnancy at 35 weeks of gestation with a history of an uncomplicated surgical evacuation of the uterus for a missed abortion earlier. Since admission she developed tachycardia and fetal bradycardia and therefore an emergency caesarian section was performed. She had a fundal uterine rupture which was bleeding. This case illustrates that uterine rupture is a possibility even without the typical history of uterine scarring.

Key words: rupture uterus before term, old perforation, signs of rupture.

Introduction

Rupture of the unscarred gravid uterus, is a rare phenomenon and an obstetrical nightmare. Risk factors for rupture in subsequent pregnancy include previous uterine surgeries like caesarean, myomectomy and hysteroscopic surgery, misuse of oxytocics, grand multiparity, cephalopelvic disproportion, version, uterine anomalies, macrosomia, and instrumental abortion[1]. We report a case of ruptured uterus at 35 weeks and 2 days with history of a uterine curettage in first trimester.

Case Report

A 25-year old woman presented at 35 weeks and 2 days gestation with intermittent abdominal pain of 8-9 hrs duration. Her last menstrual period was on 27th July 2010 and expected date of delivery was 4th May 2011. Examination revealed an irritable uterus of 34-36 weeks with the fetus in cephalic position with a regular fetal heart rate of 140 bpm. Per vaginal examination revealed a soft, 1.5 cm dilated, uneffaced cervix. She had been married for 5 years and had delivered a full term female baby uneventfully 3 yrs back.

She had undergone an evacuation of the uterus at 10 weeks for a missed abortion with no suggestion of any complications such as perforation of uterus, 2 years ago. Her present pregnancy had been uncomplicated and supervised in our hospital since 19 weeks. Her bloodgroup was O+ve, Hb was 12.1 g, routine urine examination was normal. A diagnosis of threatened preterm labour was made and she was kept under observation. Ten hours later, she developed tachycardia upto 130 bpm, and fetal tachycardia upto 170 bpm. Her blood pressure, ECG and temperature were normal. Ultrasound was done and this did not show any evidence of abruption. Artificial rupture of membranes was done and liqor was clear. Syntocinone augmentation was done, upto 40 mIU. 5 hours later, there was fetal bradycardia and emergency caesarean was done. Per vaginum examination showed clear liqor, cervix 2.5 cm, 50% effaced, vertex at station – 2. On opening the abdomen, there was hemoperitoneum of approximately 200 cc. Lower segment cesarean section was done and a live male weighing 3 kg, with apgar of 8,9 was delivered. On exteriorizing the uterus, a surprise finding of a full thickness rent of 2 cm in the fundus, with raw bleeding edges was seen. The right tube was found adherent to the surface of the uterus close to the rupture site (Figure). The rupture was repaired after closing the

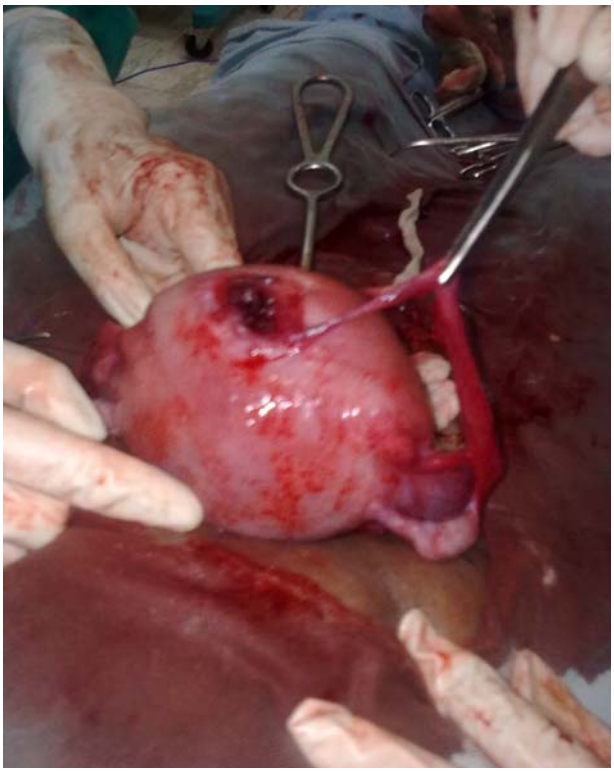

Figure. **Fundal uterine rupture with adherent fallopian tube suggestive of old perforation.**

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uterus. No blood transfusion was necesary. Patient had an uneventful post operative course and was discharged with the baby.

Discussion

The incidence of unscarred uterine rupture was reported to be .009% in a 20 year study by Wang *et al*[2]. However, the scarring caused by an unrecognized perforation in first and second trimester dilatation and curettage becomes an unidentified risk factor for rupture uterus. Radman *et al*[3] reported the incidence of uterine perforation as 1: 472 at curettages. Previous caesarean scar, grand multiparity, fetopelvic disproportion, malpresentation, injudicious use of oxytocics and prostaglandins, macrosomia, fetal malformations as hydrocephalus, placenta previa, prior invasive mole, prior instrumental abortion especially midtrimester, version, uterine anomalies, myomectomies, repair of uterine anomalies, prior hysteroscopic procedures have been identified as risk factors for rupture uterus[1]. Spontaneous rupture in an unscarred uterus is a very rare event[4, 5]. However, in cases with a past history of curettage of even in first trimester, the uterus may not be unscarred! Unexplained maternal tachycardia was the first sign of rupture, in retrospection, appearing approximately 10 hours after admission followed by the second sign of fetal bradycardia. Diagnosis of intrapartum rupture was made on the operation table. The presence of the adherent tube adjacent to rupture site was suggestive of an old perforation. Spontaneous ruptures are virtually always intrapartum[6]. In this case, we were not anticipating rupture as the cause of fetal distress. We want to highlight the following features in this case:

1. History of surgical evacuation of the uterus in first trimester with an 'unrecognized' perforation is a risk factor for rupture.

2. In cases with small rents, though full thickness, the classic picture of rupture uterus may not be there as in our case where maternal tachycardia was the first sign followed by fetal distress. In fact, fetal distress has been found to be the most reliable clinical symptom[7].

3. In a scarred or weakened area of the uterine wall due to previous curettage, rupture can occur before term either spontaneously or with even minimum doses of oxytocics.

4. Maternal pulse monitoring along with a high index of suspicion can aid in diagnosing of rupture uterus especially in the presence of fetal heart rate decelerations, even in low resource settings.

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