
CASE REPORT

Ruptured Uterus in Primi Para

Tanweer Sana¹, Shama Chaudhry², Rubina Hussain³

ABSTRACT

Rupture of a gravid uterus is a surgical emergency. Spontaneous rupture of the uterus in a primipara is very rare. Furthermore, uterine rupture prior to the onset of active labor is extremely uncommon in a primipara, with very few reported cases. We present a case of antepartum uterine rupture in a 23-year-old gravida 2 para 0+1 with 26 weeks pregnancy in whom the clinical features resembled those of abruptio placentae. She had past history of one uterine curettage and now presented with 26 weeks pregnancy & abdominal pain of sudden onset. After ultrasound scan, uterine rupture was diagnosed and an emergency laparotomy done. The entire amniotic sac was found in the peritoneal cavity with a rupture of the uterine fundus.

KEY WORDS: *Primipara, Uterine Curettage, Antepartum, Uterine rupture.*

¹ **Tanweer Sana**

MRCOG Resident, Department of Obstetrics & Gynaecology, Ziauddin University Hospital

² **Shama Chaudhry**

Senior Registrar, Department of Obstetrics & Gynaecology, Ziauddin University Hospital

³ **Rubina Hussain**

Professor, HOD and Chairperson, Department of Obstetrics & Gynaecology, Ziauddin University Hospital

INTRODUCTION

Uterine rupture in pregnancy is a rare and often catastrophic complication with a high incidence of fetal and maternal morbidity. Numerous factors are known to increase the risk of uterine rupture, but even in high-risk subgroups, the overall incidence of uterine rupture is low. From 1976-2012, 25 peer-reviewed publications described the incidence of uterine rupture, and these reported 2,084 cases among 2,951,297 pregnant women, yielding an overall uterine rupture rate of 1 in 1,146 pregnancies (0.07%).¹

The initial signs and symptoms of uterine rupture are typically nonspecific, which makes the diagnosis difficult and sometimes delays definitive therapy. From the time of diagnosis to delivery, generally only 10-37 minutes are available before clinically significant fetal morbidity becomes inevitable. Fetal morbidity occurs as a result of catastrophic hemorrhage, fetal anoxia, or both.

The premonitory signs and symptoms of uterine rupture are inconsistent, and the short time for instituting definitive therapeutic action makes uterine rupture in pregnancy a much feared event for medical practitioners.²

CASE

A 23 years old primigravida with a history of D&E 8 months back due to miscarriage, presented to emergency from secondary care center, with 26 weeks pregnancy, frequent vomiting, tachycardia and abdominal distension over 3 days. On arrival she was in shock and severely anemic. On admission her B.P was 80/40mmg and pulse was 140b/min. Abdomen was tender & gut sounds were audible. Her chest was full of bilateral crepts. The abdominal examination showed a tense abdomen with 30 weeks sumphysiofundal height (SFH) with absent fetal hearts. The per vaginal examination revealed closed a cervical os. Laboratory tests showed hemoglobin of 4 gm/dl, white blood count of 23,600/cu mm, a hematocrit of 10 and a platelet count of 317,000 unit². Random blood sugar, arterial blood gas analysis, liver function tests and renal function tests were within normal limits. Coagulation studies were normal. Ultrasound confirmed fetal demise. Emergency laparotomy was performed and ruptured uterus

was found at fundus with fetus in peritoneal cavity. 2.5 liters of hemoperitonium was drained. Uterus was repaired and peritoneal lavage was done. Six units of packed cells & 8 FFP were transfused. Postoperatively patient remained well. Stitches were removed on tenth post operative day. She was advised contraception for 6 months and counseled for early booking in next pregnancy in a tertiary care hospital.

DISCUSSION

Rupture of uterus, similar to rupture of any internal organ can be life threatening for the mother and uterus and appears to account for an increasing proportion of all uterine ruptures. Prevalence is 1/5700 to 1/20,000 and incidence in scarred and unscarred uterus is 0.7% and 5.1% respectively per 10,000 deliveries.³ Rupture in these cases has been attributed to inherent or acquired weakness of myometrium, disorders of collagen matrix and abnormal architecture of uterine cavity like bicornuate uterus, uterus didelphys, blind uterine horns, over distension of uterine cavity and protracted labor. Rupture of uterus is also associated with trauma and obstetric maneuvers. Ruptured of unscarred uterus appears to occur more frequently in less developed countries, possibly related to higher parity, longer labor and higher frequency of protracted pelvis in these areas as well as lack of access to emergency obstetrical services. In 1903, Baisch was able to record 37 instances of non traumatic uterine rupture which occurred in the first six months of pregnancy.⁴ The combination of abdominal Pain with signs of hemoperitonium and shock in the latter half of pregnancy may suggest complete spontaneous uterine rupture. In addition to caesarean section salpingectomy and curettage have preceded spontaneous uterine rupture in the 2nd trimester. Rupture involving fundus is characteristic of antepartum state.

Early uterine rupture is a rare condition which occurs essentially in a scarred uterus [e.g. deep cornual resection, myomectomy (Dubuisson et al, 1995)], Caesarean section and iatrogenic uterine perforation. Other less common causes are placenta increta, congenital anomalies, trauma and sacculation of entrapped retroverted uterus. Among these etiologies, placenta percreta although rare, is a highly morbid situation which usually manifests in the third trimester. Very few cases have been reported and those too were diagnosed intraoperatively.

The conditions which predispose to invasive placentation include a previous dilatation and curettage, uterine scarring, advanced maternal age and previous endometritis. These risk factors are frequently seen in the IVF/embryo transfer candidates. The pathogenesis of rupture of the unscarred uterus is not well defined.²

Our case report showed that past history of curettages should be considered as risk factors for uterine rupture even during pregnancy because there could be an unnoticed uterine perforation or uterine weakening by the curettage, especially if it was done in the second trimester when the uterus is softer and more fragile. This case report shows that when there is past history of curettage, the issue of abdominal pain in pregnant women should be

taken seriously. Ultrasound scan and external electronic fetal monitoring should be carried out rapidly so as to diagnose earlier uterine rupture.⁵

The most common site of uterine rupture is the anterior wall of the lower segment. Other sites of rupture are anterior wall of upper segment and lateral wall. Spontaneous rupture of the posterior wall of body of uterus also occurs whereas a fundal rupture is the rarest.⁶

Spontaneous rupture should be considered in patients regardless of gestational age, even if they are not depicting symptoms. Uterine rupture is very rare in the second trimester of pregnancy; it should be taken into consideration in the differential diagnosis of acute abdomen, especially in the presence of a predisposing factor

REFERENCES

¹ Martínez-Garza PA, Robles-Landa L P A, Roca-Cabrera M, Visag-Castillo VJ, Reyes-Espejel L, García-Vivanco D. Spontaneous uterine rupture: report of two cases. *Cir Cir* 2012;80:78-82

² NahumGG. Uterine Rupture in Pregnancy. Medscape.com/article/275854-overview

³ Schrimsky DC, Benson RC. Rupture of the pregnant uterus: a review. *Obstet Gynecol Surv.* Apr 1978; 33(4): 217-232

⁴ Nuye AAJ, Cambell NS JS. Spontaneous rupture of uterus second trimester of pregnancy. *Canad M A J.* 1957 177; 789-792

⁵ Nkwabong E, Kouam L, Takang W. Spontaneous uterine rupture during pregnancy. case report and review of literature. *Afr J Reprod Health.* 2007; 11(2)

⁶ Sarkar M, Mandal J, Roy D, Halder M, Ghosh RM, Basak S. Spontaneous unscarred fundal rupture of uterus at 16 weeks of pregnancy. *JEMDS* 2013; 2(4): 8578-8580