

CASE REPORT

Posterior uterine rupture – A devil with many faces

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ABSTRACT

Uterine rupture in an unscarred uterus is a rare occurrence. A 25 years old, multigravida woman with an unscarred uterus who was induced with misoprostol at a primary health center and referred to our facility with provisional diagnosis of placental abruption with fetal distress. We diagnosed her to have posterior uterine wall rupture with dead fetus. Active management with emergency laparotomy and obstetric hysterectomy led to complete recovery of the mother with uneventful 3 month follow up. The report highlights the need for judicious induction, considering uterine rupture as differential diagnosis even in an unscarred uterus in case of non progress of labor, and urgent referral to higher centre for timely management.

Keywords: Uterine rupture, unscarred uterus, misoprostol induction.

Uterine rupture is a catastrophic complication of labor, almost universally fatal for the baby and potentially life threatening for the mother. It occurs more frequently in less developed countries, possibly due to an increased prevalence of high parity, longer labor, and contracted pelvis in these areas, with frequent lack of access to emergency obstetric services. Rupture of the unscarred pregnant uterus occurs rarely with an estimated incidence of 1 per 17-20,000 pregnancies [1]. Posterior uterine rupture is even more atypical, with only a few cases reported in the literature so far. The present report of a rare case of posterior uterine rupture of an unscarred uterus serves to remind the obstetricians of the varied presentations of uterine rupture and highlight the importance of early surgical intervention to reduce the associated maternal

mortality.

Case report

A 25 year old, gravida 3, para 2 with 2 live births was referred from a primary health center (PHC), at 36 weeks of gestation with complaints of pain abdomen and mild bleeding per vaginum since 1 hour. She had been induced with per vaginal misoprostol in view of poor Bishop's score at the PHC, and was referred in view of non progress of labor after repeated doses with increased bleeding per vaginum with a provisional diagnosis of abruption with fetal distress.

On obstetric history, all her previous births were normal vaginal deliveries with no antenatal complications. There was no history of IUCD use, abortion, D&C or any other surgery on the uterus. For the present pregnancy, she had taken irregular antenatal

Received: 9th June 2016. **Accepted:** 29th July 2016.

Jain A, Tiwari A, Kellogg A. Posterior uterine rupture – A devil with many faces. The New Indian Journal of OBGYN. 2017; 3(2): 108-10

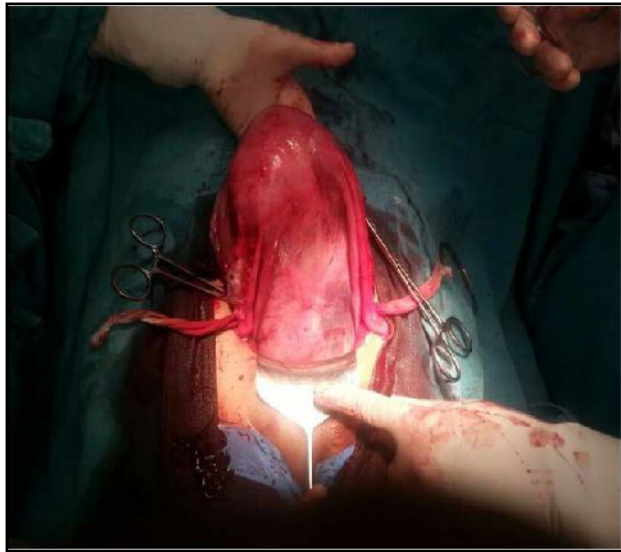


Figure 1: Showing intact anterior wall of uterus with round ligaments and fallopian tubes

visits with no known antenatal complications. No iron or calcium supplements were taken. When received in our hospital, she was pale and haemodynamically unstable with a feeble pulse, heart rate 128 per minute and blood pressure 80/60 mm Hg. Rest general and



Figure 2: Showing rent extending from isthmus upto the fundus on the posterior uterine wall

systemic examination was normal. On per abdominal examination, guarding and rigidity were present and fetal heart sound could not be localized. On per vaginal examination, there was mild bleeding with multiparous os, station of presenting part could not be made out and tenderness in both fornices.

Blood investigations revealed Hb of 6 g/dL (as against Hb value of 11.8 g/dL on prior antenatal visit, one month earlier). Her liver and renal function tests and coagulation profile were within normal limits. An emergency ultrasound showed a dead fetus of 36 weeks with placenta lying in the peritoneal cavity, significant amount of free fluid & an ill-defined continuity of posterior uterine wall more towards the left side. We actively resuscitated the woman, & shifted her for an emergency laparotomy following informed consent. Intraoperatively, we found a haemoperitoneum of approximately 1.5 litres with a single dead fetus attached to placenta lying in the peritoneal cavity. The posterior wall of uterus was ruptured with the rent extending from isthmus upwards towards the fundus more towards the left side and the anterior wall was intact (Figure 1 & 2). The margins of the rupture were irregular and ragged. Bilateral adnexa were normal. We did an obstetric hysterectomy, leaving behind the ovaries. Hemostasis was achieved, peritoneal wash was done, and abdomen was closed in layers. Three units of whole blood were transfused in the intra and immediate post operative period. The post operative period was uneventful. She was discharged on the seventh post operative day with appropriate advice and was regularly followed up for 3 months. The follow up period was uneventful.

Discussion

Rupture of an unscarred uterus occurs rarely with an estimated occurrence of 1 in 17,000–20,000 deliveries. In India, Pagi et al (1995) found that the most common group was spontaneous (63.69%) followed by scar rupture(22%) and traumatic(14.8%). Very similar figures were also given earlier by Dhar (1989) from Srinagar, India [2]. Clinical signs of uterine rupture during pregnancy are nonspecific, and very variable. It is not always easy to distinguish uterine rupture from

other abdominal emergencies like appendicitis, pancreatitis, cholecystitis etc. Schrinisky and Benson in their series of 40 uterine ruptures found 10 spontaneous ruptures without any predisposing factors. The case presented here emphasizes the possibility of uterine rupture, even in women with unscarred uterus and before the onset of labor. Besides multiparity, no apparent cause was found in our case. Uterine rupture is associated with significant maternal and fetal morbidity and mortality. In their study of uterine rupture, Schrinisky and Benson, found a maternal and fetal mortality rate of 20.8% and 64.6% respectively. Other etiological factors which are recognized as contributing factors to a rupture of unscarred uterus are obstetric maneuvers, malpresentations especially transverse fetal position, cephalopelvic disproportion, excessive uterine contractions [3], abnormal placentation (placenta percreta mainly), trauma due to uterine curettage and uterine anomalies. Early surgical intervention is fateful to the successful treatment of uterine rupture. The therapeutic management is a total or subtotal hysterectomy [4]. Repair may be performed as to preserve reproductive function in nulliparous women though they have been reported to have a recurrence risk of 4-19% in a subsequent pregnancy.

Conclusion

A case of uterine rupture can have varied presentations. To significantly decrease resulting maternal and fetal mortality, strict vigilance, early identification of high-risk cases, judicious use of oxytocics, early suspicion in case of non progress of labor and urgent referral to higher centre is mandatory. Health care workers including primary health care

workers should be trained in diagnosing such cases & well equipped to provide preliminary resuscitation & timely referral to higher centre. Overall socioeconomic development with special emphasis on awareness of public in general and mother in particular and efficient health care delivery system in underdeveloped areas remain long term goals.

Conflict of interest: None. **Disclaimer:** Nil.

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