Second Trimester Uterine Rupture: A Case Report

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Abstract: ***Background**: Uterine rupture is a life - threatening obstetrical emergency carrying a high rate of mortality and morbidity for the mother and the foetus.1 Uterine rupture in the non - labouring uterus is a rare occurrence.[2] **Case Presentation**: One such case is being reported here; where a 21year old second gravida visited us with complaints of pain in abdomen and excessive bleeding per vaginum. The patient was in hypovolemic shock. It was successfully managed by emergency laparotomy followed by repair of ruptured uterus. **Conclusion**: Early diagnosis and timely intervention could save the maternal life.*

Keywords: Uterine rupture, obstetrical emergency, uterus, second trimester

1. Introduction

A uterine rupture is a complete division of all three layers of the uterus: the endometrium (inner epithelial layer), myometrium (smooth muscle layer), and perimetrium (serosal outer surface).[3]

It is more common in women with prior cesarean delivery.4 The rate of uterine rupture is approximately 1% for women with one previous cesarean delivery versus 3.9% for those with greater than one previous cesarean delivery.[5]

Uterine rupture leads to maternal hemorrhage, placental abruption and extrusion of the amniotic sac and fetal parts through the uterine defect into the peritoneal cavity.[2]

This can result in significant consequences for both the mother and foetus, including hysterectomy, urologic injury, neonatal respiratory distress, perinatal asphyxia and maternal or foetal death.[6]

The inconsistent signs and the short time in prompting definitive treatment of uterine rupture makes it a challenging event. Here, we describe one such case where prompt diagnosis and timely intervention saved a life.

2. Case Presentation

A 29yr old female G2P1L1 at 17.4 weeks of gestational age with previous 1 LSCS done 2.5 years back came to OBGY casualty with 4 months of amenorrhea and bleeding per vaginum since 6 hours associated with passage of clots and pain in abdomen. No history of any trauma to abdomen or physical assault or fall over abdomen was noted. She denied history of intake of any pills.

The pulse rate was 120/min and blood pressure 80/64 mmhg. On per abdomen examination, uterine contour was not well appreciated. On per speculum examination, active bleeding was noted from uterine cavity.

Patient was in hypovolemic shock. Fluid resuscitation was given. Probable diagnosis of uterine rupture was made. Patient was shifted to operation theatre for Emergency Laprotomy.

Under general anaesthesia abdomen opened in layers with midline vertical incision. Intra op there was evidence of 800ml hemoperitoneum with 50 gms of clot. Rupture of uterus was noted at the site of previous caesarean scar. En sac abortus was found extrauterine in the abdominal cavity. Abortus of 300gms was delivered. Placenta and membranes weighing 50gm were expelled completely and spontaneously. The uterine rupture was only along the incision line. Edges of the rupture were regular and healthy hence, uterus was repaired and sutured by intermittent locking suturing technique with vicryl 1 - 0. Intraperitoneal drain was kept and abdomen closed in layers. Intraop 2pint PCV were transfused. ICU care was given. The post op period was uneventful and patient was discharged on post op day 7.

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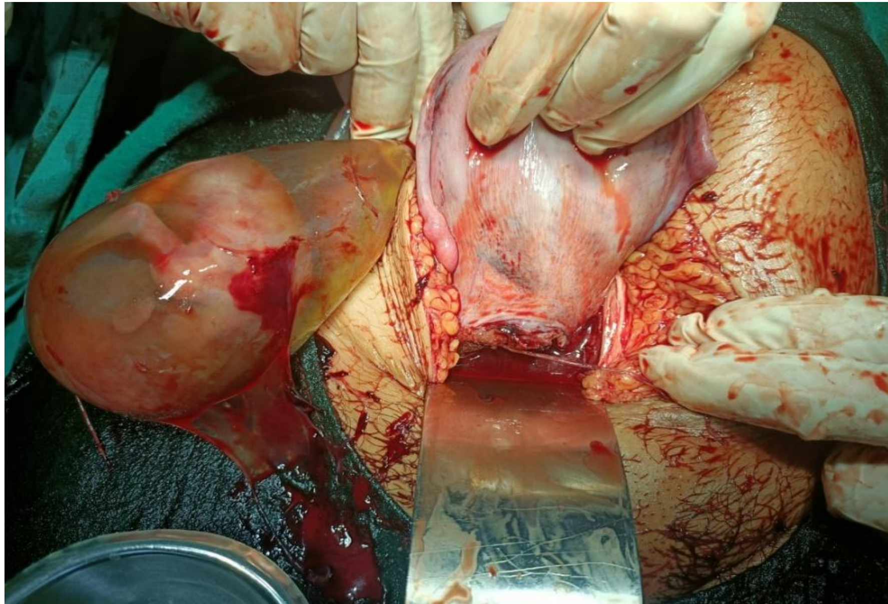

Image 1: Showing full length scar site rupture of uterus with ensac abortus in peritoneal cavity.

Image 2: Showing regular margins at the site of rupture of uterus.

3. Discussion

The incidence of uterine rupture in both scarred and unscarred uteri is increasing worldwide.[8]

The causes include external injuries, induction of labour, multiparity, cephalo - pelvic disproportion, adherent placenta, abruption of placenta, history of intrauterine intervention causing perforation. Other risk factors include, uterine anomalies, malpresentations, curettage, injudicious use of oxytocin, uterine diverticula, chronic corticosteroid use.[9]

Misoprostol administration is also associated with an increased rate of uterine rupture.[10]

Uterine rupture has been shown to occur in labour (whether preterm, term or spontaneous).[11]

It is extremely rare in first and second trimester of pregnancy and is usually diagnosed intra - operatively.[12]

Ruptures occurring during labour generally involve the lower segment whereas those prior to labour are usually corporal. The classical clinical picture includes abdominal pain and tenderness, cessation of labour, shock, and vaginal bleeding.[13]

The rupture in our case was at 17 weeks of gestational ageat scar site which is unusual. Thus, there is possibility that this patient has consumed some abortifacient as there is no other obvious reason for rupture. Hence, the case was medicolegally registered.

4. Conclusion

Early detection, diagnosis, and proper management are critical in the setting of uterine rupture to decreasematernal morbidity and mortality.

Measures aimed at reducing the high maternal and perinatal mortality associated with uterine rupture include health

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education of the masses, proper antenatal care, early referral of at - risk patients.

We need to create awareness among the masses regarding available, accessible and approachable comprehensive abortion care services and family planning services in our country.

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