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Spontaneous Uterine Rupture in Early 2nd Trimester Pregnancy after two Previous Caesarean Sections: A Case Report.

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ABSTRACT

Background: Uterine rupture in the non-laboring uterus is a rare occurrence, which can lead to significant morbidity and mortality for the mother and fetus. Management of this presentation is complex at pre-viable gestation.
Aim: To report this uncommon case of Spontaneous uterine rupture in a pre viable gestation and should, therefore, be included in the differential diagnoses of acute abdomen in early pregnancy.
Case Report: She was Mrs. AG a 32-year-old trader, Gravida 4 Para 2^{+1} (2 Alive with two previous caesarean section) who presented to the emergency department with two hours history of sudden severe abdominal pain and an episode of syncopal attack. Ultrasound scan revealed an intrauterine pregnancy at 13 weeks 4 days gestational age with a defect in the anterior uterine wall and fetal membranes herniating through the defect. It also noted significant free fluid in the peritoneal cavity. She was diagnosed as spontaneous uterine rupture after bedside ultrasound scan ruled out ectopic pregnancy. The defect which was along the previous lower segment scar was repaired using Vicryl 2 after termination pregnancy during surgery. Her post-operative period was uneventful, she had psychological support and was counseled on family planning.
Conclusion: The case is that of spontaneous pre viable uterine rupture which is an uncommon occurrence associated with negative consequences for both the mother and the fetus when not properly managed.

INTRODUCTION

Uterine rupture is defined as complete separation of the myometrium[1] and can also occur spontaneously in non labouring uterus.[2] Spontaneous uterine rupture is a rare occurrence of pregnancy with potentially life-threatening complications that can occur in women with previous uterine surgery or scarred uterus.[1] Uterine rupture incidence is low worldwide, 1 in 1416 (0.07%). In developed countries, the incidence among unscarred uterus is 1 in 8434 (0.012%) as compared to developing countries the incidence is 1 in 920 (0.11%).[6] Reported rates of uterine rupture in Nigerian cities, Lagos is 1 in 164 (0.61%), Benin city is1 in 172 (0.58%), Enugu is 1 in 103 (0.97%), Ilorin is 1 in 210 (0.47%) while Abuja is 1 in 117 (0.85%).[7-11] Common risk factors for uterine rupture are scarred uterus and inappropriate use of uterotonics.[11]

Management of this uncommon complication requires several considerations. In previable or extremely premature fetus, management decisions are complex. Termination of the pregnancy with uterine repair alone or hysterectomy can be done.[13] In recent years, repair of uterine rupture in the second and early third trimesters has been reported, with successful delay of delivery.[2] We describe a rare case of spontaneous uterine rupture in the early-second trimester and successful surgical repair.

CASE REPORT

She was Mrs. AG a 32-year-old trader, Gravida 4 Para 2^{+1} (2 Alive with two previous caesarean section) who presented to the emergency department with two hours history of sudden severe abdominal pain and an episode of syncopal attack. No history of vaginal bleeding. The first confinement was an emergency caesarean section for suspected fetal distress and the second was an elective repeat caesarean section for suspected fetal macrosomia. The pueperium were uneventful. She had no history of previous uterine rupture, no history of fall, abdominal massage or trauma to the abdomen. There is no other significant medical history.

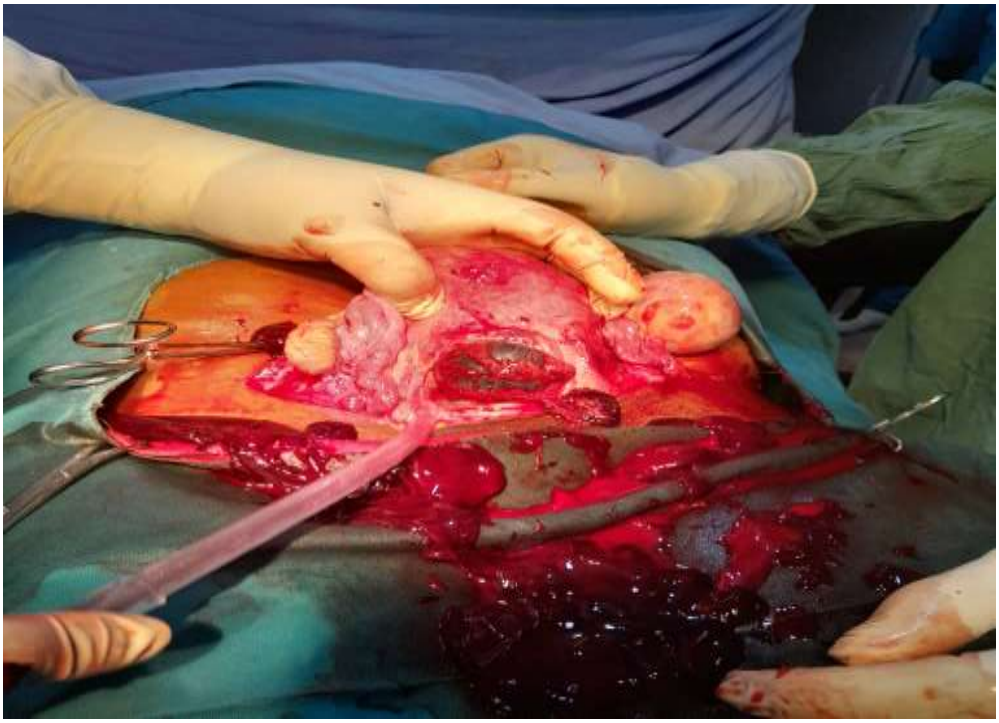
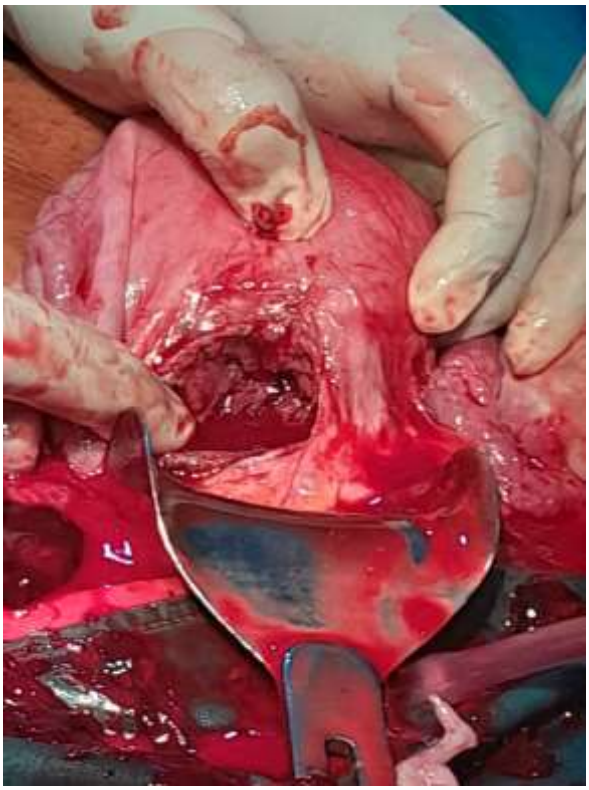


Figure 1: Rupture site with fetal membranes protruding through the rent.




Figures 2 & 3: Picture showing the cavity at the ruptured site and the aborted fetus.

On presentation, the patient was lethargic, pale, tachycardic, hypotensive and had generalized abdominal tenderness. Her pre operative packed cell volume was 26%, she had 2 units of blood grouped and cross-matched, her serology results were negative. Urgent bedside ultrasound scan revealed an intrauterine pregnancy at 13 weeks 4 days gestational age with a defect in the anterior uterine wall and fetal membranes herniating through the defect. It also noted significant free fluid in the peritoneal cavity. A diagnosis of uterine rupture was made. She was resuscitated with intravenous fluid and oxygen therapy. She had emergency exploratory laparotomy. Intraoperatively, a 5cm uterine rupture with intact fetal membrane protruding through the rent was identified in the lower uterine segment, along the previous caesarean section scar. The pregnancy was terminated and the ruptured site of uterus was repaired in two layers with vicryl 2. The haemoperitoneum and estimated blood loss was 800 Milliliters. She was transfused two units of whole blood, received appropriate antibiotics, haematinics and analgesics. Her Post operative packed cell volume was 30%. She recovered well from Surgery and was discharged from the hospital after five days following counselling for contraception

DISCUSSION.

The management of uterine rupture depends on the clinical presentation, gestational age and the extent of rupture. There has be few reported cases of spontaneous antenatal uterine rupture. A review of ten cases by Surico et al. described spontaneous uterine rupture that presented between 13 to 26weeks gestation with successful repair.[12] Previous cesarean delivery and previous uterine surgery were the risk factors identified in that series, while few of the cases presented with no identifiable risk factor.[12] The most common presenting symptom of spontaneous rupture is sudden onset of severe abdominal pain, which happened to our patient. Vaginal bleeding and shock has also been reported.[12] An ultrasound examination confirmed hemoperitoneum, its utility in diagnosing uterine rupture can be limited. MRI has demonstrated superior accuracy in evaluation of uterine wall defects.[13] A variety of repair techniques have been used in cases of spontaneous uterine rupture, including polyglactin 910, PDS, Monocryl, chromic catgut sutures in interrupted and running fashion, GoreTex and Tachocomb patches and Vicryl and Surgicel mesh.[12] In our case, a double Layer simple repair was carried out with vicryl 2 because the rupture was not extensive and it was along the line of the previous scar.In our case.

CONCLUSION

Spontaneous uterine rupture is a rare complication especially in previable gestational age. However, early recognition and prompt management is needed to preserve maternal and perinatal outcomes especially in women with previous uterine surgery or a scarred uterus. Therefore, uterine rupture should be a differential

diagnosis in women with acute abdomen in early pregnancy especially those with previous scar.

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