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RESEARCH ARTICLE

PLACENTA PERCRETA INDUCED UTERINE RUPTURE IN 2 ND TRIMESTER: A RARE CASE

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ABSTRACT

Spontaneous uterine rupture is life threatening in pregnant women. Placenta percreta-induced spontaneous uterine rupture is extremely rare and difficult to diagnose. We present a 35-year-old pregnant woman of G age 26+2 weeks with a history of 1 previous lower segment cesarean section who presented to the emergency department in shock. Massive hemoperitoneum was noted in sonography and exploratory laparotomy was done. During laparotomy, uterine rupture with massive bleeding was detected; uterus repair was done with tubal ligation. Postpartum Hemorrhage was controlled by internal iliac ligation. The patient was discharged without any complications.

INTRODUCTION

Placenta accreta describes the abnormally implanted, invasive or adherent placenta. Derivation of accreta comes from the Latin ac-+ crescere - to grow from adhesion or coalescence, to adhere, or to become attached to. Uterine rupture due to placenta percreta is very rare, with an incidence of 1 in 5,000 pregnant women and has a catastrophic outcome due to massive hemorrhage¹. The likelihood of placenta syndrome is closely linked to the prior cesarean section. Here, we describe a case of a pregnant woman who suffered from spontaneous uterine rupture due to placenta percreta at 26+2 weeks of gestation. .

Case Presentation

35 year-old pregnant woman of gestational age 26+2 weeks with a history of previous one lower segment cesarean section who presented in the emergency department with shock and acute abdomen. During physical examination, abdominal tenderness was noted. Her blood pressure was not recordable and heart rate 200 beats/min. Ultrasound examination revealed massive accumulation of free fluid in the peritoneal cavity. (Figure 1) Cardiac activity was absent and the exact cause of massive hem operitoneum could not be identified. MRI WAS ADVISED WHICH WAS inconclusive.

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Laboratory analysis showed a hemoglobin level of 4.5 g/dl and an elevated white blood cell count of 33000 cells/mm³. Exploratory laparotomy was done in view of deteriorating condition which showed 10 cm transverse mid uterine defect with intact intrauterine gestational sac and fetus inside. It was intrauterine. Placenta was bulging through the defect. The fetus was delivered through the ruptured site. We preferred uterine preservative surgery instead of total abdominal hysterectomy. Uterus repair was done after debriding margins. Postpartum haemorrhage was controlled by internal iliac artery ligation. Tubal ligation was done after taking consent. The patient was transfused 6 units of packed red blood cells and 6 units of fresh frozen plasma during hospital stay. Her recovery was uneventful, and she was discharged on postoperative day-9.

DISCUSSION

Incidence of placenta percreta is 1 in 533². Placenta percreta is the condition IN which chorionic villi invades the full thickness of myometrium and serosa. It has catastrophic complications with maternal mortality of 7-11% and neonatal mortality of 9.76 per cent¹. Previous caesarean section is the most common risk factor for uterine rupture. Other risk factors include obstructed labour, shoulder dystocia, manual removal of placenta, abdominal trauma, grand multiparity, breech extraction, instrumental-assisted vaginal delivery, previous

uterine instrumentation, and abnormal placentation. There are only few case reports of spontaneous uterine rupture due to placenta percreta. Increasing caesarean section rates in modern obstetrics has led to increasing rates of placenta percreta.



Figure 1. USG image shows free fluid with low level echoes (Hemoperitoneum) in pelvis



Figure 2. Lower segment uterine rupture with adherent placenta transverse rent is present in the lower uterine segment

Few cases all over the world have been reported but however, it has been reported to occur as early as 9 weeks of gestation. Lower uterine segment is the most affected segment if rupture occurs during labour whereas fundus is the most affected segment if spontaneous rupture occurs in early and mid pregnancy. In our case we noted a transverse defect at the mid uterine segment. Clinical signs of uterine rupture are acute abdominal pain, vaginal bleeding, hypotension and maternal tachycardia and fetal distress; Our patient had acute abdominal pain and shock with no vaginal bleeding.

Delayed diagnosis of uterine rupture leads to life threatening complications. Early diagnosis, blood arrangement and exploratory laparotomy is the key to management. Ruptured ovarian cyst or appendicitis can be considered in view of delayed diagnosis. Therefore, uterine rupture should be considered in all pregnant women who present with an acute haemorrhagic abdomen. The role of imaging and investigations plays an important role in minimizing morbidity and mortality and allows for early diagnosis. If an adherent placenta is suspected on ultrasound, MRI should be offered for placental mapping. In patients whose ultrasonography reveals placenta previa with the risk factor of previous uterine surgery should be urgently referred to tertiary health centers in view of high risk pregnancy for further investigations including MRI to diagnose placenta accreta¹ and required management.

Ultrasonography can be useful in detecting uterine rupture early detection of uterine rupture in patients of placenta percreta with acute abdomen. Previous case reports showed hysterectomy as the last resort¹ but in our case we decided for uterine preservation surgery along with internal iliac artery ligation for management of PPH. Uterine preservative surgery has advantage over hysterectomy as it has less blood loss and a decreased chance of ureteric injuries. In the case of insufficient hemostasis total hysterectomy is a better option. In conclusion, this report highlights a rare incidence of spontaneous uterine rupture due to placenta percreta which was managed with uterine preservative surgery and internal iliac ligation. so we suggest uterine preservative surgery with internal iliac ligation to be considered as a fruitful option for management of uterine rupture due to placenta percreta even in hard to manage situations.

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