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CASE REPORT

Cornual Placenta Percreta with Uterine Rupture

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ABSTRACT

A 25-year-old woman, gravida 2, para 1 reported with history of 27 weeks pregnancy with pain abdomen and bleeding per vaginum (PV) of 2 days duration. She had undergone lower segment cesarean section (LSCS), done 3 years back during previous pregnancy. On examination, patient had pallor, tachycardia, and hypotension. The uterus was corresponding to the period of gestation. There was tenderness over left side of uterus and fetal heart sounds were absent. Per speculum examination revealed amniotic fluid leak mixed with blood. Ultrasonography (USG) findings were suggestive of moderate hemoperitoneum. Uterine rupture at the site of the previous LSCS scar was suspected. Patient was taken for emergency laparotomy. Intraoperative, previous cesarean scar was intact with the fetus inside the uterine cavity. There was left cornual implantation of placenta with a rent of about 4 cm. The placenta was protruding outside the uterus at left cornual end. Per-operative diagnosis of placenta percreta leading to uterine rupture was made. Obstetric hysterectomy was performed. The diagnosis of placenta percreta was confirmed later by histopathological examination.

Keywords: Obstetric hysterectomy, Placenta percreta, Uterine rupture.

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INTRODUCTION

Placenta percreta comes under the classification of placenta accreta syndrome. Derivation of *accreta* comes from the Latin *ac-crescere*—to grow from adhesion or coalescence, to adhere, or to become attached to.[1] Placenta accreta syndrome is a general term used to describe the clinical condition when part of the placenta, or the entire placenta, invades and is inseparable from the uterine wall.[2]

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Three grades of abnormal placental attachment are defined according to the depth of invasion:

1. Accreta: Chorionic villi attach to the myometrium, rather than being restricted within the decidua basalis
2. Increta: Chorionic villi invade into the myometrium
3. Percreta: Chorionic villi invade through the uterine serosa

The incidence of placenta accreta syndrome is 1 in 533 deliveries for the period 1982 to 2002,[3] which has increased from the previous reports of 1 in 4,027 deliveries in 1970s and 1 in 2,500 deliveries in 1980s.[4,5] The highest risk of placenta accreta is in cases with myometrial damage caused by a previous cesarean delivery with either an anterior or posterior placenta previa overlying the uterine scar.[4] Other risk factors include advancing age, multiparity, advanced maternal age, myomectomy, severe endometrial damage seen in Asherman's syndrome, submucosal fibroid, and endometrial ablation. In addition to their significant contribution to maternal morbidity and mortality, accreta syndromes are one of the leading causes of intractable postpartum hemorrhage and emergency peripartum hysterectomy.[6-8] Maternal mortality with placenta accreta has been reported to be as high as 7%.[9]

CASE REPORT

A 25-year-old patient, gravida 2, para 1 reported with 27 weeks pregnancy, pain abdomen, and bleeding PV. She had undergone LSCS, done 3 years back during her previous pregnancy. On examination, her pulse was 140/min and blood pressure was 90/60 mm Hg, and she had marked pallor. On per abdominal examination, uterus was corresponding to the period of gestation, fetal presentation was beech, and fetal parts were felt. There was tenderness over the left side of uterus and the fetal heart sounds were absent. Per speculum examination revealed amniotic fluid leak mixed with blood. Investigations on admission were: hemoglobin: 6.6 gm%, total leukocyte cells: 36,000/mm^3, and blood group: O positive. An USG was done, which revealed moderate hemoperitoneum. A provisional diagnosis of uterine rupture at the site of previous LSCS was made.

The patient was taken up for an emergency laparotomy. A midline incision was taken and abdomen was opened in layers. Hemoperitoneum of approximately 1.5 to 2 L was noted. After clearing the blood and blood

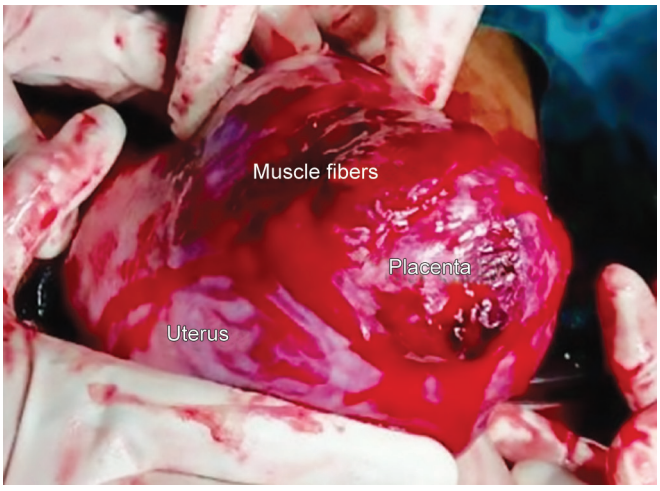

Fig. 1: Cornual implantation of the placenta invading the myometrium

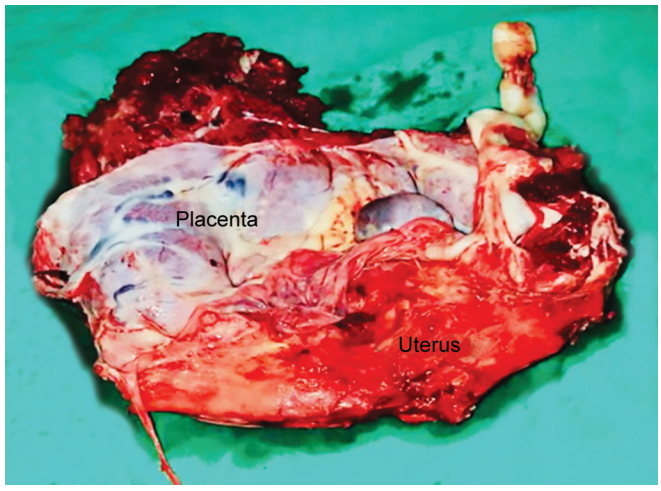

Fig. 2: Specimen of subtotal hysterectomy showing the placental invasion on cut section

clots, the uterus was examined for rupture. The previous LSCS scar was intact with fetus inside the uterine cavity. A transverse incision was made in lower segment and a stillborn baby was delivered. The uterus exteriorized, which revealed a cornual implantation of the placenta that had invaded through the myometrium and had led to a rent in the uterus of about 4 cm. The site had blood oozing from it. This was probably the cause of the hemoperitoneum (Fig. 1). The diagnosis of placenta percreta with uterine rupture was made. Obstetric hysterectomy was performed. After achieving complete hemostasis, abdomen was closed. The patient made an uneventful recovery. Since the patient had lost significant amounts of blood, four units of packed cells and four units of fresh frozen plasma were transfused. The hysterectomy specimen was sent for histopathological examination (Fig. 2), which confirmed the diagnosis of placenta percreta.

DISCUSSION

Placenta accreta syndromes are on a rising trend and this rise is associated with the increase in the rate of cesarean sections. Placenta previa with history of previous LSCS is at high risk of developing placenta accreta syndrome. On the contrary, rupture uterus is a rare entity and is generally seen with previous LSCS scar giving away.

In our case, although patient had history of previous LSCS the implantation of the placenta was at the left cornual end. Uterine rupture had occurred secondary to the placenta percreta and not the previous LSCS scar giving away.

The antenatal diagnosis of placenta accrete syndrome is extremely difficult but not impossible with the development in the field of radiology. Mainstay of prenatal diagnosis for abnormal placentation remains USG with magnetic resonance imaging (MRI) being used only as an adjunct in indeterminate cases. Although the predictive values for both MRI and Doppler are low, Doppler helps in visualization of numerous vessels, which show turbulent flow in the lacunae.[10]

In cases of placenta accreta-induced uterine rupture, conservative approach in its management can be applied. These include uterine curettage along with packing, adjuvant chemotherapy with selective arterial embolization, prophylactic uterine, or hypogastric artery ligation with wedge resection of the ruptured uterine wall.[11] These treatment modalities have higher rates of mortality compared with hysterectomy and hence, hysterectomy is preferred in cases of emergency where the patient presents with acute abdomen, like in our case.[12]

CONCLUSION

Uterine rupture with placenta percreta is an obstetrical catastrophe and every obstetrician's nightmare. The antenatal diagnosis by USG and MRI has low sensitivity and specificity. Yet, if diagnosed early and managed promptly it can be life saving for the mother and the fetus. However, in most cases diagnosis is made on operation table leading to severe maternal morbidity and mortality. As a general rule placenta accreta should be suspected in all the cases of previous LSCS and in cases of placenta previa.

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