



PLACENTA PERCRETA NECESSITATING HYSTERECTOMY: A RARE CASE REPORT

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ABSTRACT

Disorders of placental invasion is an umbrella term which encompasses three different disorders: placenta accreta, increta and percreta depending upon the extent of invasion into the uterus. They are an important cause of severe maternal and foetal morbidity and mortality. As the incidence of caesarean section is on the rise so is the incidence of these disorders. The incidence of placental invasion disorders is variable ranging from 1:540 to 1:93000. Placenta percreta is a rare complication of pregnancy associated with significant postpartum hemorrhage often requiring emergency hysterectomy. Majority of these cases are seen in patients with history of previous caesarean section with anterior low lying placenta. I report a case of 34 year G₃P₂₊₀(L₂) who presented to the emergency at 24 weeks of gestation with the chief complaint of bleeding per vaginum with low lying placenta and history of previous two lower segment caesarean section (LSCS). On examination the patient was haemodynamically unstable and ultrasonography revealed low lying placenta with features suggestive of placental invasion. Emergency hysterotomy was performed with extraction a dead female child with weight 620 grams. Intraoperatively there was evidence of placenta percreta with uncontrolled haemorrhage; hence hysterectomy was performed. This case report highlights the presenting features, complications, early diagnosis and management of placental invasion anomalies to reduce the maternal and foetal morbidity and mortality.

KEYWORDS: Placenta percreta, pregnancy, lower segment caesarean section, low lying placenta, hysterectomy.

INTRODUCTION

Placenta accrete spectrum refers to the different grades of morbid placental attachment to the uterine wall secondary to invasion of the trophoblast into the myometrium beyond the uteroplacental interface. In *placenta accreta* (79% of the cases) the uterine decidua's is absent and the chronic villi attaches to the myometrium directly. The term *placenta increta* (14%) is used to describe deep myometrial invasion by trophoblastic villi and *placenta percreta* (7%) refers to the villi perforating through the full thickness of myometrium and uterine serosa with possible involvement of adjacent organs.^[1] The latter causes the highest maternal and perinatal morbidity and mortality. The incidence of placenta accreta is estimated to be 1 in over 2,500 deliveries and has increased in recent years. The main risk factors are previous history of caesarean section and placenta praevia.^[2] Other factors involved include medical procedures on the uterus (e.g., previous myomectomy, uterine curettage and endometrial ablation), uterine malformations, and medical procedures, such as uterine embolization or pelvic irradiation.^[3] Various imaging modalities are available for the diagnosis. Because of its efficacy, reproducibility, easy availability, lower cost and less time required for exploration ultrasonography is the first line

investigation of choice. In cases of equivocal findings on USG magnetic resonance imaging (MRI) can be done.^[4] Although hysterectomy is an option for the retained placenta, leaving the placenta in situ with a conservative treatment such as uterine arteria embolism, mifepristone, methotrexate or hysteroscopy resection can also be performed when there is no haemorrhage and the patient wishes to preserve her fertility.^[5] The importance of diagnosis of placenta accreta before delivery allows multidisciplinary planning in an attempt to minimize potential maternal or neonatal morbidity and mortality.

CASE REPORT

A 36 year G₃P₂₊₀(L₂) presented to the emergency department of a tertiary care hospital at 24 weeks of gestation with the chief complaint of bleeding per vaginum with the passage of clots for the past 1 day. She was completely unbooked. She had history of previous 2 lower segment caesarean section. There was no history of trauma or sexual intercourse. On examination the patient looked pale with a blood pressure of 80/50 mm of Hg and pulse rate of 124/ minute. On per abdominal examination height of uterus (HOU) was corresponding to the period of gestation (POG) with no audible foetal heart sound. Local genitalia was soiled with blood and per speculum examination revealed presence pf clots in

vagina along with active bleeding from cervical os. Urgent ultrasonography was done which revealed anterior placenta praevia with placental margin 1cm from cervical os along with absence of retroplacental myometrial zone and presence of multiple intraplacental vascular lacunae suggestive of anterior placenta praevia with placenta accreta. Her routine antenatal investigations were normal. On complete haemogram her haemoglobin level was 6.2g% and platelet count was 130,000/ μ L. As the patient was haemodynamically unstable decision for emergency hysterotomy was taken after proper counselling and informed written consent of patient and her attendants. Adequate blood and component arrangement was done in view of anticipated haemorrhage. A dead female foetus was extracted out with weight 620 grams. Placenta was completely adherent to the uterus (figure 1) and serosa at the anterior aspect of body of uterus was breached by the placenta (figure 2). There was no invasion of surrounding abdominopelvic organs. Placenta percreta was suspected intraoperatively. There was uncontrolled haemorrhage despite administration of uterotonics. Hence decision for emergency hysterectomy was taken. Blood products were procured and patient was transfused 3 units of PRBC and 2 unit of fresh frozen plasma and 2 units of platelet rich plasma intraoperatively. Estimated blood loss was 2L. Hysterectomy specimen was sent for histopathological examination (HPE). Postoperatively the patient was shifted to ICU and kept under strict vital monitoring. Patient was given antibiotic cover and her investigations (CHG, LFT, RFT, PT, INR, aPTT) were sent every 12 hourly for the first 48 hours. Postoperative period was uneventful and the patient was discharged in good health on 7th postoperative day. Patient was advised to follow up with HPE report. The patient came back after 3 weeks and the histopathological examination confirmed absence of placental basal plate and presence of trophoblastic tissue in the myometrium and serosa suggestive of placenta percreta.



Figure 1: completely adherent placental bits (red arrow).

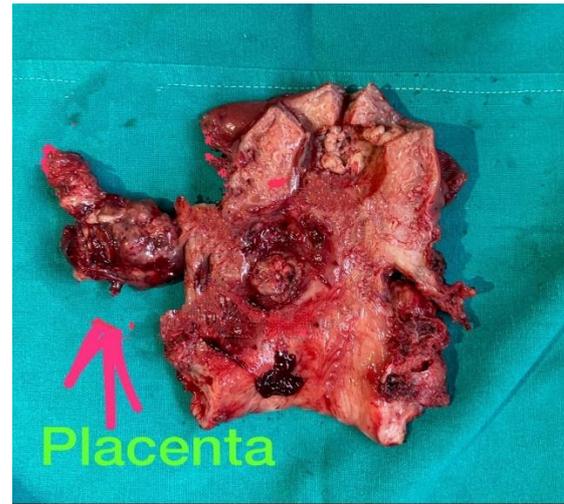


Figure 2: uterine serosa breached by placenta.

DISCUSSION

Abnormal placental invasion into the myometrium occurs due to partial or complete absence of decidua basalis and incomplete development of the fibrinoid layer (nitabuch's membrane). The incidence of placenta praevia and placenta accreta is increasing. Caesarean section is believed to constitute the main risk factor for the development of placenta accrete. The risk increases with the number of previous caesarean sections. In women with placenta praevia undergoing caesarean delivery, the frequency of placenta accrete syndromes increases with an increasing number of caesarean deliveries as follows: First caesarean birth- 3 percent, second caesarean birth - 11 percent, third caesarean births- 40 percent, fourth caesarean births- 61 percent.^[6] Other reported risk factors include advanced placenta praevia, maternal age (>35 years), submucosal uterine fibroid, prior uterine surgery and endometrial defects.^[7] In the present case the risk factors were advanced maternal age, history of previous two LSCS and anterior placenta praevia. The prediction of abnormal placental invasion in antepartum period is the most important factor that affects prognosis. Knowing the diagnosis beforehand reduces mortality and morbidity by enabling the operation to be planned in elective conditions before the delivery. It has been revealed that peripartum blood loss and transfusion amount are significantly lower in planned caesarean hysterectomy than in emergency operations.^[8] Besides clinical findings, transabdominal, transvaginal and Doppler ultrasonography are used in the diagnosis. In the ultrasonographic examination, placental lacunae, hypoechoic area loss in the retroplacental area, irregularities in bladder- uterine serosa complex, myometrium thickness' being less than 1 cm and protrusion of the placenta into bladder are the symptoms that suggest abnormalities of placental invasion.^[9] MRI complements and supports ultrasound diagnosis, and it may be especially useful if the diagnosis is uncertain or inconclusive in high-risk placenta accreta pregnancies, placenta praevia with location on the posterior or lateral wall, obesity, a possible invasion of the perimetrium or for planning the surgical procedure, in order to better

determine the extent and the depth of the invasion.^[10] In this case report ultrasonography findings were suggestive of anterior placenta praevia and placenta accreta along with intraplacental vascular lacunae. There are several treatment options in case of placental accreta: a) caesarean section hysterectomy with the placenta left in situ because removal of the placenta is associated with significant haemorrhagic morbidity; b) caesarean section with preservative treatment of the placenta (i.e., leaving the placenta in situ). Subsequent interventions include embolization of the uterine arteries followed by expectant management, and adjuvant medical treatment with methotrexate, GnRH analogues and prostaglandins; c) caesarean section with extraction of the placenta and conservative surgical treatment.^[11] Surgical intervention has been suggested as the first line of treatment of placenta percreta as hysterectomy is required in approximately 93% of the cases. Conservative management is exclusively used in rare setting of the adjacent organ involvement such as bowel or bladder. Chemotherapeutic agents, especially Methotrexate, have been used with success in several patients. But Hysterectomy is the only lifesaving intervention in patients with severe internal bleeding.^[12] Since in the present case there was placenta percreta with life threatening haemorrhage and the family was complete decision for peripartum hysterectomy was taken. Placenta accreta is associated with increased maternal morbidity, including blood transfusion, hysterectomy, admission in intensive care unit (ICU), infection, and prolonged hospitalization. This case highlights the need of detailed ultrasonographic assessment of placenta in the second trimester especially in patients with previous LSCS and placenta praevia for early diagnosis of disorders of placental invasion so that multidisciplinary approach in a specialised hospital can be carried out in an attempt to minimize the potential maternal and foetal morbidity and mortality.

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