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Case Report

Placenta previa percreta: a case report on diagnosis and management

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ABSTRACT

A 37-year-old female patient, G2P1L1, previous caesarean section, presented at 27 weeks of gestation, with the chief complaint of spotting per-vaginum, not associated with pain in the abdomen. The ultrasound performed was s/o placenta previa with placenta increta. She presented with similar complaints on and off during the second trimester and was treated conservatively. Follow up scans revealed placenta percreta and the pregnancy was electively terminated at 33 weeks. A multidisciplinary team, consisting of a urosurgeon, a gynaecologist and an interventional radiologist were present during the procedure. The patient recovered fully.

Keywords: Placenta previa, Percreta, Previous cesarean

INTRODUCTION

The placenta provides nutrients and oxygen to the growing baby and removes waste material from the baby. It grows within the uterus and stays there until the baby is born. During the third stage of labour, the placenta separates from the wall of the uterus, and is expelled. This is also called afterbirth.[1]

Placenta accreta spectrum (PAS) includes placenta accreta, increta, and percreta. Pre-existing damage to the endometrial-myometrial interface leads to PAS. Increasing caesarean section rates has raised the incidence of PAS. This is one of the most severe pregnancy complications.[1]

Placenta percreta (PP) is a condition in which the placenta abnormally penetrates entirely through the myometrium and into the uterine serosa. This might be complicated by the attachment of the placenta to surrounding structures or organs, such as the urinary bladder or rectum. PP is a potentially fatal condition.[2]

CASE REPORT

A 37-year-old female patient, G2P1L1, presented at 27 weeks of gestation, with the chief complaint of spotting per-vaginum, not associated with pain in the abdomen. The ultrasound performed was s/o placenta previa with placenta increta. She had a previous caesarean section. During her 2nd trimester, she was admitted on and off for a similar complaint, and treated conservatively.

Follow-up sonography performed after one month was s/o placenta previa with PP (Figure 1). The patient was asymptomatic. She did not complain of bleeding per vaginum, spotting per-vaginum, decreased fetal movements, or pain in the abdomen. She was at 32 weeks period of gestation and was admitted in view of high-risk pregnancy for expectant management. On admission, her vitals were stable. The uterus was relaxed, fetal heart sound localized, and there was no scar tenderness. A magnetic resonance imaging (MRI) was done, s/o placenta previa with PP (Figure 2).

It was decided to deliver the patient electively by caesarean section at 33 weeks. Two doses of steroids were given to the mother for the baby's lung maturity. A multidisciplinary team, consisting of a gynaecologist, a surgeon, a uro-surgeon, an anaesthetist, a hematologist, and an interventional radiologist was sought. Adequate blood products were reserved. On the day of the surgery, balloon catheters were inserted in bilateral uterine arteries, for embolization through the femoral artery. This was performed by the interventional radiologist. This was followed by a cystoscopy performed by the urosurgeon. Cystoscopy showed a hyperaemic posterior wall mucosa and no e/o placental invasion. This was followed by a classical caesarean section. The lower part of the uterus was occupied by the placenta.

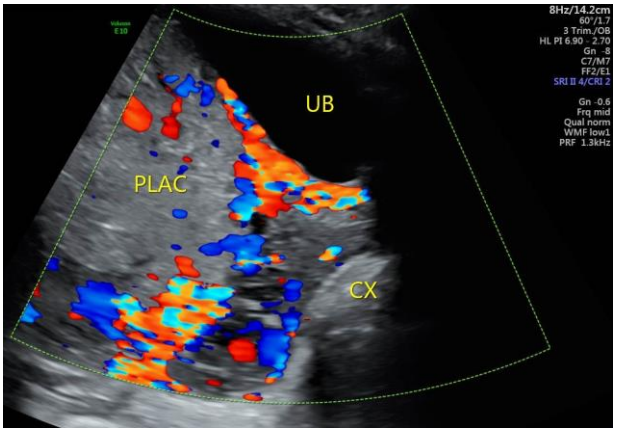

Figure 1: USG pelvis.

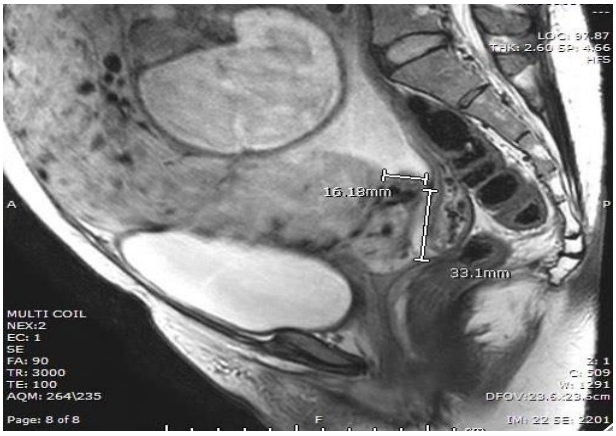

Figure 2: MRI abdomen.

Placental extensions were seen extending up to the posterior wall of the urinary bladder

A vertical incision was given on the fundus and the baby was delivered by breech extraction. A 1.75 kg baby was delivered. Uterine incision sutured. The decision was taken to proceed with caesarean hysterectomy in view of severe bleeding due to PP. A step-wise subtotal hysterectomy was performed. Placenta was dissected. Haemostatic sutures were taken. Urinary bladder not invaded. The urine output was clear. The patient was transfused 8 pints of packed cell volume (PCV), 8 pints of fresh frozen plasma (FFP), 2 pints of cryo-precipitate, 6 units random donor platelets (RDP) and 1 mg of injection novo 7 was given intra-operatively in view of severe bleeding. The decision was taken to leave three-roller packs inside the pelvic cavity to control bleeding. The abdomen was closed, drain kept in situ and patient underwent uterine artery embolization post-caesarean delivery, during which another 4 pints of PCV were transfused.

She was shifted to ICU postoperatively, where another 8 units of FFP, 4 units of cryoprecipitate and 2 mg injection novo 7 were given. The immediate post-op Hb was 9.1, which de-escalated to 6.7 after about 12 hours of surgery. The patient was hemodynamically unstable, with tachycardia of around 150 bpm, blood pressure (BP) of 90/60 mmHg on Norad support. The drain output was haemorrhagic, around 100 ml/hour. The hematologist advised massive transfusion protocol. Hence, 2 units each of PCV, FFP, Cryoppt and RDP were transfused. The patient was observed overnight. Her tachycardia settled upto 100 bpm and drain output was reduced to around 70 ml/hour. The Hb repeated after 12 hours had dropped to 5.4, for which another 3 units of PCV was given. Hb was repeated again after 6 hours, which had risen upto 7. Henceforth, Hb had been on the rising trend. Meanwhile, the patient developed paralytic ileus and the abdominal girth of the patient had increased by almost 10 cm. On post op day 2, sonography was performed, which was s/o multiple organized haematomas. Thus, decision was taken to re explore the patient, remove the packs and achieve haemostasis. The patient was re explored, the three roller packes removed, clots evacuated, cervix sutured and haemostasis achieved. Drain placed and abdomen closed. The patient was given 2 units PCV, 1 unit SDP and 4 units FFP and shifted to ICU. The patient was observed in the ICU for four days and shifted out to the ward when she stabilized.

DISCUSSION

The incidence of placenta accreta has increased from approximately 0.8/1000 deliveries in the 1980s to 3/1000 deliveries in the past decade.[3] PP, a life-threatening condition, is caused due to previous caesarean delivery, uterine curettage, placenta previa, uterine malformations, previous manual removal of placenta and multiparity. The woman may present with bleeding per vaginum, pain abdomen or gross haematuria or may even be asymptomatic. Ultrasound in the second or third trimester can diagnose the condition.[3] An MRI of the pelvis can also be helpful in confirming the diagnosis of PAS.

The complications include severe life threatening bleeding, damage to local organs (e.g. bowel, bladder, and ureters) and neurovascular structures in the retroperitoneum and lateral pelvic sidewalls from placental implantation and its removal, amniotic fluid embolism,

dilutional coagulopathy, consumptive coagulopathy, acute transfusion reactions, transfusion-associated lung injury, acute respiratory distress syndrome, and electrolyte abnormalities caused by transfusion of large volumes of blood products, crystalloids, and other volume expanders, Postoperative thromboembolism, infection, multisystem organ failure, and maternal death.

Treatment is highly individualized. If the woman wants to preserve her fertility, uterine conservation might be considered. However, she should be counselled regarding haemorrhage, infection, suboptimal future pregnancy outcome and a possibility of a hysterectomy in the future. Sometimes, in order to avoid damage to the surrounding structures, the placenta might be left behind; followed by post-operative methotrexate injection.

A caesarean hysterectomy is preferred if future fertility is not desired. In our case, we proceeded with uterine arteries embolization and followed a massive transfusion protocol.

In cases where bladder is involved, opinion of a urologist should be sought. A pre op cystoscopy followed by ureteric catheterization may be done. Patient should be counselled regarding intra op cystostomy or a partial cystectomy. In one review of 54 cases of PP invading the bladder, partial cystectomy was performed in 24 of the 54 patients.[4]

In our opinion, a multidisciplinary team approach and delivering in a tertiary care centre can lower the complication rates.

CONCLUSION

A multidisciplinary approach should always be followed in such a patient. Patient should be counselled throughout the pregnancy. Patient should be delivered by elective caesarean section.

Further studies are needed to determine the most appropriate treatment guidelines for such severe cases.

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