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Case Report

An undiagnosed case of placenta increta: a nightmare for obstetricians

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ABSTRACT

Placenta increta, one type of morbidly adherent placenta, is characterized by entire or partial absence of the decidua basalis, and by the incomplete development of the fibrinoid or Nitabuch's layer and villi actually invading the myometrium. The major clinical problem in placenta accreta spectrum disorder is failure of placenta to separate normally from the myometrium after fetal delivery. It is associated with high morbidity and sometimes with a lethal outcome, mainly as a result of severe bleeding, uterine rupture and infections. 33-year-old Mrs. X primigravida at 38 weeks 5 days admitted in our hospital for elective LSCS with the indication of hysteroscopy and laproscopic ACUM (accessory and cavitated uterine mass) excision in the past. Adherent placenta diagnosis was done on table, senior anesthetic team was called and decision was taken to remove the placenta manually with adequate resuscitative measures i/v/o torrential bleeding. Defect of 4×6 cm on the anterolateral part of the upper uterine segment (previous ACUM excision site). Decision was done to go ahead with vigilant watch, keeping ready for systematic devascularization of the uterus followed by caesarean hysterectomy in case torrential bleeding continues. With a multidisciplinary approach, Patient was serially monitored with USG, beta hCG levels, attempting to preserve uterus in this case. This was a very rare case of asymptomatic placenta previa with placenta increta in a post ACUM scarred uterus and it was successfully managed by sequential monitoring with backed up uterine embolization team if secondary PPH occurs.

Keywords: Decidua basalis, Morbidly-adherent placenta, Placenta accrete spectrum disorder, ACUM, Nitabuch's layer

INTRODUCTION

Placenta increta, one type of morbidly adherent placenta, is characterized by entire or partial absence of the decidua basalis, and by the incomplete development of the fibrinoid or Nitabuch's layer and villi actually invading the myometrium.[1] If the decidual spongy layer is lacking either partially or totally, the physiological line of cleavage is absent, and some or all cotyledons are densely anchored.

Microscopically, placental villi attach to smooth muscle fibers rather than to decidual cells. This decidual deficiency then prevents normal separation after delivery. The surface area involved at the implantation site and the depth of trophoblast ingrowth vary between women, but all affected placentas can potentially cause significant hemorrhage.[2] Placenta increta is considered a rare occurrence with a prevalence of approximately 1 in 2500-7000.[3] Placenta increta is frequently correlated with placenta previa, previous uterine curettage, previous cesarean sections, multiparity (six or more pregnancies), and advanced maternal age.[4] The precise etiology of this condition remains unclear.[4] It is associated with high morbidity and sometimes with a lethal outcome, mainly as a result of severe bleeding, uterine rupture and infections.[3] In subsequent pregnancies following PAS, recurrence risks are high. Evidence shows that these women also have greater risks for placenta previa, manual placental removal, preterm delivery, and hysterectomy. Five characteristic sonographic findings suggest PAS: (1) placental lacunae; (2) thinning of the retroplacental myometrium; (3) disruption of the bladder-uterine serosal interface; (4) bridging vessels from the placenta to the

bladder-serosal interface; and (5) placental bulge that pushes outward and distorts the contour of the uterus.[2] Accessory cavitated uterine malformation (ACUM) are isolated cavitated lesion within the lateral aspect of the myometrium, inferior to the attachment of round ligament. They are a rare Mullerian anomaly presenting with severe dysmenorrhea.[5] It is lined by functional endometrium and surrounded by myometrium-like smooth muscle cells; hence, it bears striking macroscopic and microscopic resemblance to the uterus. Hysterosalpingography (HSG), Ultrasonography (USG), and Magnetic resonance imaging (MRI) form the mainstay of diagnostic imaging. The entity is often under diagnosed; therefore, a high index of suspicion combined with HSG and MRI imaging can help in making an accurate diagnosis.[6]

CASE REPORT

A 33-year-old Mrs. X pimigravida at 38 weeks 5 days with uneventful antenatal period admitted in our hospital for elective LSCS with the indication of hysteroscopy+laproscopic ACUM excision (Figure 1) which she underwent 2 months prior to spontaneous conception.

Intra-operative findings

After opening the peritoneal cavity, lower uterine segment incision was put and delivered a single live female baby of 3.31 kg at 9:19 am. Placenta did not separate spontaneously even after administration of adequate amount of oxytocics, Adherent placenta diagnosis was done on table, senior anesthetic team was called and decision was taken to remove the placenta manually with adequate resuscitative measures i/v/o torrential bleeding. Majority of placental tissue was removed with careful digital evacuation, meanwhile we could notice a defect of 4x6cm on the anterolateral part of the upper uterine segment (previous ACUM excision site). Gentle dismantling of tissue from the defect area was done. Decision was done to go ahead with vigilant watch, keeping ready for systematic devascularization of the uterus followed by cesarean hysterectomy in case torrential bleeding continues. Lower segment incision was closed in single layer using adequate hemostasis. Blood and blood product transfusion was done. Once patient was hemodynamically stable, after confirming significant reduction in P/V bleeding- decision to conserve the uterus was made. Abdomen closed in layers and patient shifted to SICU, keeping the system ready to handle any emergencies, in need.

POD-0

After 3 hours from the surgery minimal trickling of blood per vagina was noted, post-op emergency scan done-confirmed rent 4×7 cm (Figure 3) with a blood clot acting as a tamponade with empty uterine cavity. Patient was monitored in SICU with a multidisciplinary approach. 1 pint PRBC and 2 pint FFP transfused post-op.

POD-1

Patient recovered well with adequate antibiotic cover with minimum bleeding P/V.

POD-7

Repeat USG (Figure 4), MRI, beta hCG and other relevant investigations done. Reports noted. On the day prior to discharge patient was counselled regarding retained bits of placenta, with associated risk of Secondary PPH and sepsis, available treatment options explained in terms of methotrexate therapy, observation under antibiotic coverage, patient opted for the latter. Asked to review after 1 week/SOS if patient had persistent symptoms.

POD-14

Patient hemodynamically stable. Repeat investigations-Noted, beta HCG was on decreasing trends. Scan after 2 weeks suggestive of no significant change in the size of the lesion, hyperechoic lesion in anterior myometrium extending into uterine cavity with calcifications, cystic spaces and mild peripheral vascularity.

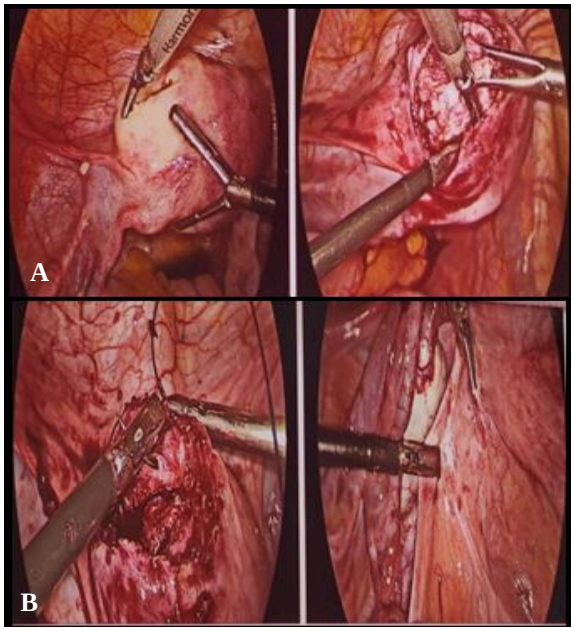

Figure 1: Hysteroscopy and laparoscopic excision of ACUM and coagulation of endometriotic implants. Spackman canula was used for uterine manipulation. Dilute vasopressin (20 IU in 200 ml NS) was injected into myometrium to minimize the blood loss. A transverse incision was made on the anterior uterine surface over the swelling with harmonic HD. Minimal chocolate coloured material drained from a small cavity. The mass was dissected with harmonic HD carefully and excised and coagulated with bipolar diathermy. Specimen retrieved and sent for HPR suggestive of accessory cavitated uterine tissue showing non secretory endometrium with adenomyosis.

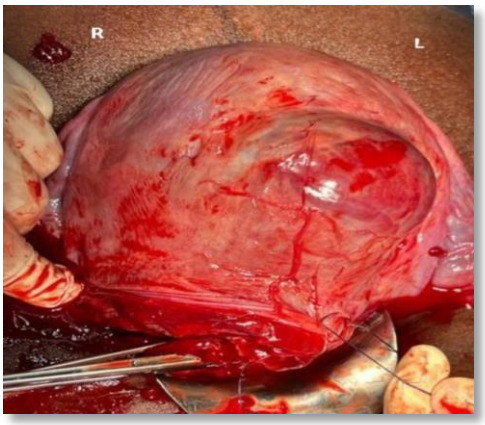

Figure 2: Defect of 4×6 cm on the anterolateral part of the upper uterine segment (previous ACUM excision site).

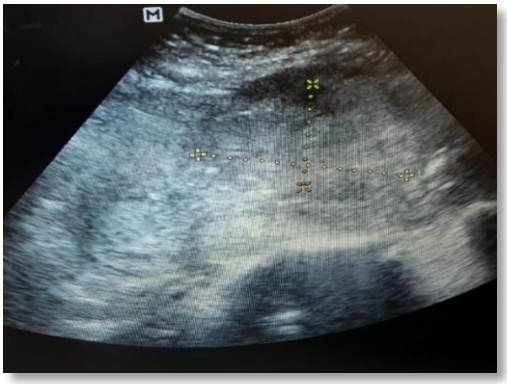

Figure 3: Immediate post-op emergency scan done-confirmed rent 4×7 cm with a blood clot.

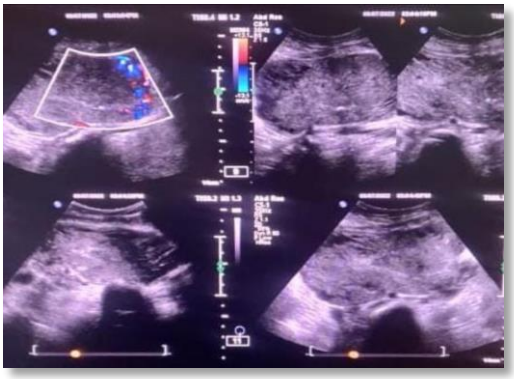

Figure 4: Follow-up USG after 1 week, suggestive of uptake of colour Doppler- suggestive of retained bits of placenta.

DISCUSSION

Placenta increta is a most feared obstetric complication, which is associated with high maternal mortality and morbidity.

Prenatal diagnosis of placenta increta can be performed using Doppler sonography and magnetic resonance imaging.[7] the diagnostic value of ultrasonography in prenatal diagnosis of an asymptomatic placenta increta is uncertain. Finberg et al reported a positive predictive value of 78% and a negative predictive value of 94%.[8] Other authors suggested that ultrasonography may detect only around 33% of cases of placenta accreta/increta.[9] The site of placental implantation, the depth of myometrial invasion, and the width of morbidly adherent placental tissue determines the extent of clinical features of placenta increta, such as hemorrhage, uterine rupture and inversion, and invasion of the urinary bladder.[10]

In our case, though placenta was in fundo-anterior position and no sign of placenta increta in second trimester anomaly scan at 20 weeks, the third trimester ultrasonography wasn't able to diagnose placenta increta, we decided for elective caesarean section i/v/o previous ACUM excision. A conservative surgery, aiming at uterine rescue by manual removal of as much placental tissue as possible remained an option. Since patient was haemodynamically stable, conservative approach was chosen, even though caesarean hysterectomy, uterine artery ligation, uterine artery embolization were the other on table options kept in mind if torrential bleeding persists. Fox et al reported that 25% of the women died during this fertility preserving treatment.[11] Under these circumstances, the conservative treatment can be adopted only in cases of a partial placenta accreta/increta and when bleeding is minimal. To allow the pregnancy to continue, there have been attempts to treat placenta increta with various drugs including methotrexate, although its safety and the efficacy in this setting are questionable.[12-14]

CONCLUSION

Our patient was a case of incidentally on table diagnosed placenta increta in a scarred uterus, which could be potentially dangerous and life-threatening consequences might occur during delivery, was managed by conservative multidisciplinary approach, and the outcome being a healthy mother and baby. So, the routine third trimester ultrasonography should always be done in each and every case to rule out this type of placenta previa and acreta spectrum, in case of high suspicion even an MRI can be done. In patients with risk factors for placenta accrete should be investigated in early pregnancy as forceful separation of placenta may lead to life threatening intraoperative bleeding and death of patient.

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