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Case Report

Incidentally diagnosed placenta accreta managed conservatively in a primigravida: case report and review of literature

Om Kumari[1], Amrita Gaurav[2]*, Kavita Khoiwal[2], Anshu Gupta[1], Dhriti Kapur[2], Rashmi Halder[2], Jaya Chaturvedi[2]

[1]Department of Obstetrics and Gynecology, Himalayan Institute of Medical Sciences, Dehradun, Uttarakhand, India
[2]Department of Obstetrics and Gynecology, AIIMS, Rishikesh, Uttarakhand, India

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***Correspondence:**
Dr. Amrita Gaurav,
E-mail: aamrity@gmail.com

ABSTRACT

Placenta accrete spectrum (PAS) disorder is rarely reported in primigravida woman without recognisable risk factors. It can be encountered intraoperatively without prior suspicion. Massive obstetric haemorrhage and increased maternal morbidity and mortality is often associated with emergency caesarean hysterectomy. We presented a 26-year-old primigravida who was presented to our institute as post-dated pregnancy in labour with no other comorbidities. She was taken up for cesarean section in view of prolonged labor. After birth of the baby, the placenta failed to separate on its own and could not be delivered with gentle controlled cord traction and uterine massage. Placenta was seen bulging out at left cornuo-fundal site as boggy mass in serosa of uterus as bluish distended placental bulge suggestive of placenta accreta. Placenta was left in situ and postoperatively uterine artery embolisation was done. Post-operatively patient did not develop any complications and follow up period of 6 months was uneventful. Conservative management of PAS can be judiciously contemplated in primiparous women desirous of fertility preservation and uterus conservation. The woman needs to be emphasised upon need for close follow up and risk of haemorrhage and sepsis till complete resorption of placenta occurs.

Keywords: Placenta accreta spectrum, Primigravida, Conservative management

INTRODUCTION

Placenta accreta spectrum (PAS) is a potential life-threatening condition. Incidence of Placenta previa has risen considerably following rise in rate of Caesarean delivery (CD), which in turn have also increased the incidence of PAS. Most cases of PAS have placenta previa, prior CD or combination of both but accreta placentation in primiparous women without recognised risk factors like prior uterine surgery, operative hysteroscopy, assisted reproductive technology, submucosal leiomyoma, endometritis or uterine malformations or any procedure causing surgical damage to endometrial integrity is exceedingly rare. These risk factors raise high index of suspicion and allows for careful sonographic examination of placenta to look for any evidence of PAS. Prenatally, unsuspected PAS is often associated with massive obstetric haemorrhage during attempts to remove the placenta manually from uterine wall. Literature shows few cases of primiparous PAS with spontaneous uterine rupture and massive haemorrhage which necessitated emergency caesarean hysterectomy.[1-3] The conservative management of PAS leaving placenta in situ have been rarely reported in primiparous women. To the best of Authors' knowledge, this is the third case in which PAS was conservatively managed with uterine conservation.[4,5]

We reported a case of placenta accreta in a primigravida woman with fundal placentation with no identifiable risk factors for PAS. It was diagnosed incidentally during CD and managed conservatively leaving whole placenta *in situ*. Emergency caesarean hysterectomy for unsuspected

PAS increases risk of operative adverse events and maternal morbidity and mortality. Conservative management with placenta leaving in situ must be given consideration in primigravid women with PAS, where fertility preservation is desired.

CASE REPORT

26 years old primigravida at 40+2 weeks gestation presented to emergency room with labor pains for 1day and leaking for last 6 hours. She was an unbooked case and her antenatal period was uneventful till date. Detailed obstetric history did not reveal any significant past medical or surgical intervention during or prior to pregnancy. Her antenatal blood investigations and ultrasound reports done in early trimesters were reviewed and suggested no abnormality.

On examination, her vitals were stable. On obstetric examination, a single live fetus in cephalic presentation with good uterine contractions was found. The patient was in active stage of labor. Pelvis was clinically adequate. Fetal heart rate tracings were within normal range. She was monitored for progress of labor via partogram but her labor failed to progress despite appropriate measures and hence emergency CD was performed. Per-operatively, lower uterine segment was thinned out and bladder was oedematous, findings consistent with prolonged labor. A female baby weighing 2.5 kg was delivered with good APGAR score at birth. The placenta failed to separate on its own and could not be delivered with gentle controlled cord traction and uterine massage even after 30 minutes. No plane of cleavage could be found and hence uterus was exteriorised and examined. Uterine wall at left cornuo-fundal junction was thinned out with highly increased vascularity over serosa. Placenta was seen bulging out at left cornuo-fundal site as boggy mass in serosa of uterus as bluish distended placental bulge (Figure 1 and 2) suggestive of placental invasion in serosa but no breach on serosal surface was seen. Uterus was grossly normal with no malformation noted. Lower uterine segment and bladder were not invaded by placenta. The clinical findings of abnormally invasive placenta were suggestive of grade 2 PAS according to FIGO clinical classification. Bilateral tubes and ovaries appeared healthy.

Patient and her relatives were informed and counselled regarding clinical diagnosis of PAS along with risks and management options for the same. After discussing all risks and consequences, they opted for fertility preservation and conservation of uterus. There was no preoperative imaging suggestive of adherent placenta thus leading to the unexpected situation.

Risks of Postpartum haemorrhage (PPH), sepsis, increased morbidity and need for emergency peripartum hysterectomy were explained to patient and relatives. After written and informed consent, decision for uterine conservation was taken. Prophylactic bilateral uterine artery ligation was done to reduce the risk of haemorrhage. Uterus was closed with whole placenta left in situ. The blood loss during surgery was within normal range.

Post-operatively uterine artery embolization was done as adjunctive measure for prevention of PPH. Patient was carefully monitored for PPH, fever and infectious morbidity in postoperative period which remained uneventful. She was discharged on 10th post-operative day in satisfactory condition. Patient was followed up after 3 months when an ultrasound with doppler showed retained placental tissue of 7.5×3.5×3.6 cm with no evidence of vascularity. Also, she was asymptomatic. On 6-month follow-up, she still had no signs of haemorrhage or infection. Ultrasound for residual placental mass showed 5.3×3×2.5 cm mass with no vascularity. She is still on further follow up till complete resorption of placenta occurs. The lady and her family were satisfied with the management option as her fertility and chances of future reproduction were preserved.

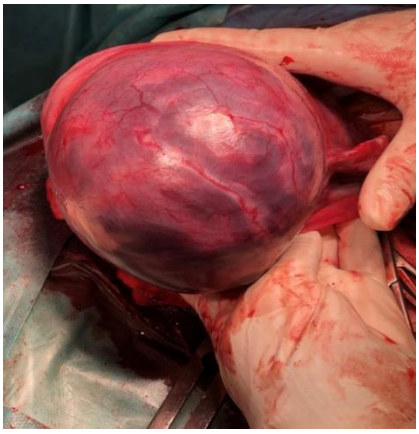

Figure 1: Placenta bulging at the left cornu fundal site.

Figure 2: Uterine fundus showing placental bulge at left cornua.

DISCUSSION

PAS encompasses a range of pathologic adherence and invasion of placenta from myometrium, serosa or to surrounding organs called placenta accreta, increta and

percreta respectively. Placenta percreta is rare and the most serious form. It may be associated with spontaneous uterine rupture. The present patient had presented in labor and clinical diagnosis of abnormally invasive placenta was made intraoperatively. There was placental invasion in myometrium and serosa was intact. (FIGO score 2). Unsuspected PAS encountered in intrapartum period are at increased risk of complications like massive haemmorhage, consumptive coagulopathy, acute respiratory distress syndrome, infectious morbidity, multisystem organ failure and maternal death. Accurate prenatal diagnosis of PAS is essential to minimise these risks. A major limitation in the management of this patient was the lack of pre operative diagnosis of PAS. High risk factors for PAS facilitates precise sonographic localisation and examination of placenta to diagnose placental accreta unlike when it could be easily missed in antenatal women without a known risk factor. Prenatal diagnosis allows time and resources for planning appropriate management with multidisciplinary approach. A detailed clinical history along with imaging by a skilled ultrasound operator is likely to improve antenatal diagnostic accuracy for PAS.

The sensitivity and specificity of grey-scale imaging by experienced operators are as high as 90%.[6] Magnetic resonance imaging is also highly accurate in identifying myometrial and parametrial invasion and its predictive parameters are comparable to ultrasound.[7,8] Bicornuate uterus, angular and cornual pregnancy are known for association of placental accreta, so early pregnancy sonogram suggestive of these must be followed later in gestation for PAS disorders. Literature shows numerous studies for prenatal ultrasound diagnosis of PAS but have wide heterogeneity in terminology of ultrasound signs. Recently European working group on Abnormally invasive placenta (AIP) has proposed standardised description of ultrasound sign according to grey scale versus color-doppler imaging for predicting PAS disorders.[9] These include thinning of uterine myometrium, loss of subplacental clear zone, intraplacental lacunae, extrauterine placental bulge and focal placental exophytic mass while uterovesical and placental bed hypervascularity along with bridging vessels beyond the uterine serosa are signs of invasive placenta. AIP intrenational expert group has suggested a reporting proforma based on these descriptions.[10]

Though prenatal diagnostic precision for PAS is high, it may remain undiagnosed during pregnancy and absence of ultrasound signs does not preclude focal PAS. This highlights the importance of careful assessment of clinical findings intraoperatively for PAS once placenta fails to separate. In present case placenta failed to seperate thereby raising the suspicion of adherent placenta. Any manouveres regarding inadvertant removal of placenta would have led to catastrophic haemorrhage and would result in a peripartum hysterectomy in a primigravida woman. Therefore, it is central to the management that suspicion of adherent placenta should be high once spontaneous placental separation is delayed.

Optimal management of PAS disorders is debated regarding surgical approach and timing of delivery.

ACOG recommends planned preterm caesarean hysterectomy while planned delayed hysterectomy is an alternative for definitive surgical management, but hysterectomy may be unacceptable for primigravida women desirous of preserving fertility. Our patient being primiparous opted for uterus conservation and denied primary caesarean hysterectomy.

In primiparous PAS disorder, conservative approach may be contemplated in absence of haemorrhage to reduce operative adverse event, fertility preservation and also in case of lack of availability of multidisciplinary team. There are some uterine conservative management techniques which have been successfully used for PAS. These include leaving the placenta in situ, partial myometrial resection of accrete area followed by myometrial repair and various suturing methods around the accrete area. Interventional radiology (IR) including intraoperative or postoperative uterine artery embolization and internal iliac artery balloon occlusion has been shown to reduce perioperative and post-partum haemorrhage. Post-operative bilateral uterine artery embolization was done in this case to reduce the risk of PPH. A systematic review has reported success rate of 90% for arterial embolization in PAS.[11]

Till date, there are no prospective studies on conservative management of PAS disorders leaving placenta in situ. In a retrospective multicentre study by Miyakoshi et al observed that leaving placenta in situ for patients with placenta praevia on caesarean scar was successful in 69% cases.[12] The rate of postpartum hysterectomy was 31% owing to haemorrhage or infection which was slightly greater than 22% observed in a French study that included all women treated conservatively for PAS disorders.[13]

A close follow-up is necessary to assess for haemorrhage, sepsis and other morbidities till complete resorption of placenta which may take several months. Currently, there is a lack of consensus on optimal protocol for this approach, including eligibility, contraindications and follow-up intervals.

CONCLUSION

PAS disorders may present without prior suspicion. Uterus conservation by leaving placenta in situ can be an acceptable approach in primiparous women. Women opting for this approach must be counselled for close follow-up with special attention to haemorrhage and infection and possibility of hysterectomy for first several months.

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