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Case Series

Case series on management of placenta accreta syndrome-conservative approach vs obstetric hysteretcomy

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Abstract

Placenta accreta is a potentially dangerous obstetric condition that needs to be managed promptly and with a multidisciplinary approach. Because cesarean sections are becoming more common, obstetricians are dealing with a significant challenge: placenta accreta. Increased maternal morbidity and death are linked to PAS. Despite the fact that patients with placenta accreta are becoming younger and that fertility preservation is necessary, there is currently no established treatment strategy that is generally approved outside of hysterectomy.

In cases of placenta accreta, the American College of Obstetrics and Gynecology (ACOG) typically advises Caesarean hysterectomy. Nonetheless, a number of conservative and fertility-sparing treatments have been undertaken, such as the triple P surgery, cervical inversion techniques, and placenta left in situ.

Keywords: Placenta accrete, Placenta accreta spectrum, Hysterectomy.

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1. Introduction

Depending on the extent of invasion, the placenta accreta spectrum is divided into three categories: placenta accreta, placenta increta, and placenta percreta. The total risk of placenta accreta in the United States for women who received a hospital discharge diagnosis linked to childbirth was 1 in 272, according to a 2016 study that used the National Inpatient Sample. This prevalence is higher than any other published study.[1] The rising number of caesarean deliveries and the advancements in assisted reproduction technology are the two main risk factors that have contributed to the placenta accreta rate during the last forty years. A deficiency in the endometrial–myometrial interface causes normal decidualization to fail in the vicinity of a uterine scar, allowing unusually deep placental anchoring villi. This is the pathogenesis of placenta accreta spectrum.Placenta accreta spectrum is caused by excessively deep placental anchoring villi and trophoblast infiltration, which are made possible by a deficiency in the endometrial–myometrial interface that prevents normal decidualization in the vicinity of a uterine scar. Prenatal ultrasound scanning appears to be a very useful method for screening for PAS these days, especially when combined with grayscale and color Doppler imaging.[2]

Nonetheless, a number of cases where Nitabuch's layer was absent and normal placentation coexisted have been documented. This discovery raises the possibility that anomalous invasiveness is not primarily caused by the absence of Nitabuch's should layer, but rather by a subsequent process. As the frequency of cesarean deliveries grew, the risk of PAS problems climbed considerably. Women who had had four or more cesarean sections and a history of placenta praevia were at a higher risk of developing placenta accreta, which was 3% with only one CS. Here, we describe a set of five placenta invasion cases that each had a unique presentation and were handled using a multidisciplinary strategy. When managing such cases, the opportunity to spare the uterus should be taken, but it's also critical to remember that just to save the uterus we should not delay the decision of hysterectomy so as to save the life of patient.

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2. Case Report

2.1. Case 1

A 30-years-old woman G2P1D1 38weeks gestation with previous caesarean delivery 3yr back came to hospital with the complaints of decreased fetal movements for 2 days and bleeding per vagina with soakage of 2 pads since 6 hrs. On admission, patient was vitally stable but pallor present. On examination- uterus was full term, fetal heart rate - 110bpm with deccelerations upto 100bpm, her fetal non-stress test was non-reactive. On per speculum examination os was closed and bleeding present. On USG, viable fetus with normal amniotic fluid, placenta anterior with decreased retroperitoneal myometrium thickness was seen. The decision of emergency caesarean section was taken in view of previous cesarean section with fetal distress. The caesarean section was performed under regional anaesthesia. Abdomen opened with pfannenstiel incision. On dissection of abdominal layers, lower uterine segment was thinned out and highly vascular placental bed was appreciated. Transverse uterine incision taken just at lower border of placental edge and delivered a healthy baby of 3100gm. 20 IU oxytocin was administered intravenously just after the delivery of fetus and removal of involved area. The placental tissue was seen extending until uterine serosa above uterine incision. Expulsion of placenta was not spontaneous so manual removal of placenta was done with gentle traction keeping small vascular placental tissue attached in situ to prevent excessive bleeding. Furthermore, placental site was reviewed properly which was thinned out. It was a partially adherent placenta. The placental implantation site of 8*6 cm which was considered to be placenta increta was resected. The uterine defect was repaired along with uterine incision and sutured with vicryl 1-0 in continuous fashion in two layers. Uterine artery ligation was not performed as there was no intensive bleeding. A total of 2000ml of crystalloid and 500 ml of colloid fluid and 1 unit of PRC was given intraoperatively assuming the amount of bleeding was approximately 1L. The amount of bleeding was lower than the other reported studies. Patient was stable intraoperative and in postoperative period and was discharged on 5th postoperative day. On histopathological examination specimen sent revealed placental villi extending deeply into the myometrium suggestive of placenta accreta.

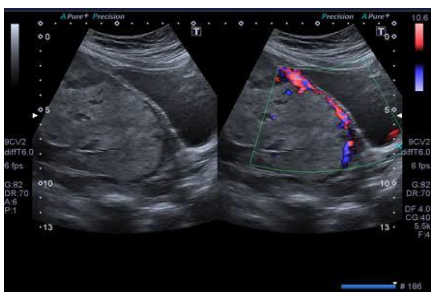

Figure 1: USG showing adherent placenta

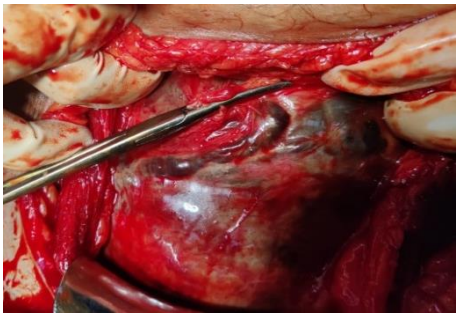

Figure 2: Intraoperative image

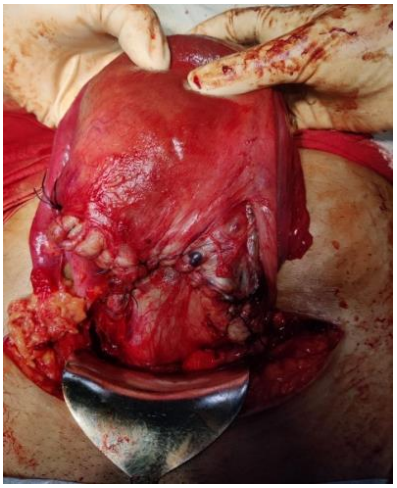

Figure 3: Postoperative image in adherent placenta

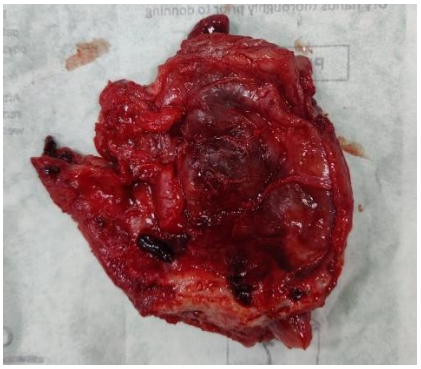

Figure 4: Separated placenta

2.2. Case 2

A 33yrs old patient with her obstetric history as G3P1L1A1 with 36 weeks of gestation with previous LSCS 8yrs back got admitted in our hospital with no complaints but for safe confinement. Her antenatal sonography was s/o placenta previa grade 4 completely covering the internal os with placenta accreta. Patient was a known c/o sickle cell trait (AS pattern) admitted for elective LSCS. Patient was stable with her vitals within normal limit. Patient was completely evaluated for her elective c-section. Her MRI was s/o complete placenta previa (grade 4) with placenta accreta at lower uterine segment with open internal os with organized 3*3 cm retro placental collection. Patient was planned for c-section and sos hysterectomy at 37 weeks. Patient had haemoglobin of 8.6mg/dl on which one-pint PCV was

transfused preoperatively. Intraoperatively placenta and membranes were separated in bits but not separated completely. Whole of the lower uterine segment was atonic and was bleeding profusely so decision of obstetric hysterectomy was taken with written, valid and informed consent. The uterine incision closed. Bleeding at the dome of bladder was seen. Bladder injury was suspected and intraoperatively surgeons were called. Bladder rent of 2cm was seen and repair was done in 2 layers with fixation of suprapubic catheter. Intra op leakage was ruled out by Methylene blue test. The procedure further proceeded with hysterectomy and 2 PCV, 2 platlets and 2 FFPs were transfused intraoperatively. Patient was kept catheterized for 14 days. Patient was stable postoperatively.

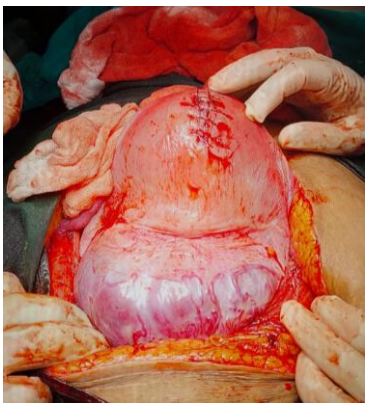

Figure 5: Intraoperative image of placenta accreta

2.3. Case 3

24 years old, G3P2L2 with 37 weeks gestational with previous 2 LSCS with USG s/o complete placenta previa with placenta percreta was referred in view of previous LSCS with pain in abdomen. On examination, P/A uterus was full term, well relaxed. P/S examination showed os closed with no bleeding. Patient was planned for elective LSCS next day with sos obstetric hysterectomy. Pre-operatively, USG s/o placenta percreta with vessels extending upto bladder. Intra-operatively, after delivery of baby, placenta was left in situ and obstetric hysterectomy was done in view of profuse bleeding. No involvement of bladder, or uterine serosa present. 3 pints PCV and 4 FFP were transfused intraoperatively. HPE report of dissected specimen was s/o placenta increta. Patient recovered and went discharge after 7 days of procedure.

2.4. Case 4

A 29-year patient P1L1A1, day 2 of normal vaginal delivery, was referred as retained placental tissue. Patient had past history of induced abortion of 3 months of gestation for which dilatation and curettage was done. In this pregnancy, earlier USG scans were not available. Patient delivered vaginally in private hospital, in which placenta could not be separated. Patient was shifted to operation theatre, 2 PCV and 4 FFP were transfused as patient went into PPH. Manual removal of placenta was attempted- but failed to remove placenta despite repeated attempts. Intra-op USG done was s/o placenta adherent to myometrium at fundus. Conservative management was planned as patient had no active bleeding. USG done on admission was s/o retained parts of placenta in endometrial cavity involving lateral wall and fundus with loss of junctional zone, with vascularity within. As patient had heavy bleeding per vaginum on day 7, uterine artery embolization was done under interventional radiology. Patient was given IV antibiotic coverage, and was discharged on day 10.

2.5. Case 5

37 years old G4P3L3 previous 3 LSCS came in emergency with complaints of pain in abdomen and vomiting. On examination, pulse-144bpm, BP- 90/54mmHg. Per abdomen examination- tenderness/guarding/rigidity present, uterine contour was not maintained, fetal parts felt.

On per vaginum examination-os closed, no bleeding. Patient shifted immediately to operation theatre. Emergency exploratory laparotomy done and baby was found in the abdominal cavity with rupture uterus. Intraoperatively, placenta was found adherent and patient started bleeding profusely when placental separation attempted. So, obstetric hysterectomy done. Intraoperatively blood and blood products given. Patient was discharged on day 7 of procedure.

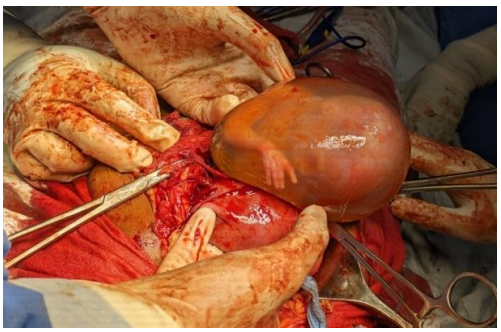

Figure 6: Fetus in abdominal cavity

Figure 7: Adherent placenta

3. Discussion

A multidisciplinary strategy is needed to manage placenta accreta spectrum, and it should include a preoperative

checklist. According to Cahill et al., patients with PAS must always have a multidisciplinary team that includes an obstetrician, anesthetist, radiologist, intensivist, and blood bank personnel.[3] Three of the five patients had radical obstetric hysterectomy, and the other two had conservative one-step uterine surgery. The only surgical procedure previously available for the treatment of PAS was an obstetric hysterectomy with the placenta left in situ. However, if the placenta accreta's extent is constrained in terms of both depth and surface area, and the whole placental implantation area is visible and accessible, uterine preserving surgery—including partial myometrial resection—is now feasible (i.e. completely anterior, fundal, or posterior without deep pelvic invasion)-this we have done in case no 1 Palacios-Jaraquemada is the first to describe one-step conservative surgery. The whole placenta and the invasive myometrial tissue are removed in one piece during conservative surgery. Reconstruction of the uterus' myometrium and, if necessary, bladder repair come next. If there is 2 cm of healthy segment remaining above the uterine cervix, one can undergo one step of conservative surgery. Repair after resection is feasible if segmental tissue destruction is less than 50% of the axial circumference; if not, a hysterectomy should be performed. There are further conservative uterus operations available, including the triple P procedure. When the placenta is partially adherent or invasive (less than 50% of the placental surface area is involved), the Triple P method is recommended. In addition to leaving the placenta in situ, investigators have used adjunctive measures to diminish blood loss, hasten placental reabsorption, or both. Techniques have included uterine devascularization with uterine artery balloon placement, embolization or ligation, and postdelivery methotrexate administration.[4,5]

The recently reported a high success rate of expectant management from Egypt with triple intervention (cervical tamponade, uterine devascularization and removal of the placenta within 32–72 days after delivery)[6] is a new experience, which may be considered in selected cases. Expectant management should be considered when a woman is ineligible for primary hysterectomy and will not be harmed much by the complications related to the placenta left in situ.

Hsiu-wei Su et al. conducted a short study that revealed that conservative therapy of an unusually invasive placenta resulted in a low successful rate of uterine preservation (25%) and a high risk of maternal complications (87.5%).[7] Surgery teams with the necessary experience to handle these kinds of situations, along with appropriate risk counseling and informed permission, should be the only ones to attempt uterus-preserving methods. This procedure aims to combine the advantages of both "cesarean hysterectomy" and "leaving the placenta in situ approach" by protecting the uterus and reducing the risk of infection or subsequent bleeding.[8]

4. Conclusion

The tendency of the morbidly adherent placenta is steadily rising as the number of cesarean sections rises. Additionally, the severe maternal morbidity that goes along with it makes it a nightmare for obstetricians. An interdisciplinary approach is necessary for its management, and one should be overly prepared and anticipate any difficulties that may arise both during and after surgery. Patients should have their PAS managed individually based on the prepared radiological findings and the intraoperative findings. Wherever possible as depending on the hemodynamic stability of the patients we should decide whether to opt for conservative management or radical approach but the ultimate goal is to save the patients life and reducing the morbidity and mortality of patient.

5. Source of Funding

None.

6. Conflict of Interest

None.

References

1. Mogos MF, Salemi JL, Ashley M, Whiteman VE, Salihu HM. Recent trends in placenta accreta in the United States and its impact on maternal-fetal morbidity and healthcare-associated costs, 1998-2011. *J Matern Fetal Neonatal Med*. 2016;29(7):1077–82.
2. Calí G, Timor-Tritsch IE, Forlani F, Palacios-Jaraquemada J, Monteagudo A, Kaelin Agten A, et al. Value of first-trimester ultrasound in prediction of third-trimester sonographic stage of placenta accreta spectrum disorder and surgical outcome. *Ultrasound Obstet Gynecol.* 2020;55(4):450–9.
3. Cahill AG, Beigi R, Heine RP, Silver RM, Wax JR; Society of Gynecologic Oncology; American College of Obstetricians and Gynecologists and the Society for Maternal-Fetal Medicine. Placenta accreta spectrum. *Am J Obstet Gynecol.* 2018;219(6):B2–16.
4. Sentilhes L, Ambroselli C, Kayem G, Provansal M, Fernandez H, Perrotin F, et al. Maternal outcome after conservative treatment of placenta accreta. *Obstet Gynecol*. 2010;115(3):526–34.
5. Agostini A, Vejux N, Bretelle F, Collette E, De Lapparent T, Cravello L, et al. Value of laparoscopic assistance for vaginal hysterectomy with prophylactic bilateral oophorectomy. *Am J Obstet Gynecol*. 2006;194(2):351–4.
6. El Gelany S, Mosbeh MH, Ibrahim EM, Mohammed M, Khalifa EM, Abdelhakium AK, et al. Placenta accreta spectrum (PAS) disorders: incidence, risk factors and outcomes of different management strategies in a tertiary referral hospital in Minia, Egypt: a prospective study. *BMC Pregnancy Childbirth*. 2019;19(1):313.
7. Su HW, Yi YC, Tseng JJ, Chen WC, Chen YF, Kung HF, et al. Maternal outcome after conservative management of abnormally invasive placenta. *Taiwan J Obstet Gynecol.* 2017;56(3):353–7.
8. Kumari M, Patel AD, Mashruwala V. Case series on placenta accreta spectrum disorder and its management. *Int J Reprod Contracept Obstet Gynecol.* 2024;13(7):1825–30.

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