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Case Report

One step conservative surgery: an approach to manage placenta accreta spectrum

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ABSTRACT

The incidence of placenta accreta spectrum (PAS) has been arisen over past few decade, attributed to increasing caesarean section rate from 1:2500 to 1:500. Caesarean hysterectomy cases are increasing to prevent morbidity and mortality in PAS. The conservative approach for PAS is to prevent postpartum hemorrhage and to preserve the uterus. We present a case of placenta accreta spectrum where we had done one step conservative surgery. A 35year old woman G3P2A0 with 32 weeks of twin pregnancy with previous caesarean section with complaints of premature rupture of membrane was admitted in emergency labour room. Patient went into preterm labour on third day of admission and delivered two live preterm babies. Placenta could not be removed after delivery. Manual removal of placenta was tried but placenta could not be removed completely and bleeding was excessive after the procedure. Medical management of postpartum hemorrhage was done. On local examination there was no cervico-vaginal tear and laceration, upper segment of uterus appeared to be well contracted, lower segment ballooned up and bleeding was still excessive. Decision of emergency laparotomy was taken. Patient underwent emergency laparotomy for postpartum hemorrhage followed by segmental resection of invaded area, bleeding stop. Post operative period is uneventful.In young and low parity patient, one step conservative surgery can be considered a uterine preserving approach in the absence of placenta praevia.

Keywords: One step conservative surgery, Placenta accreta spectrum, Postpartum hemorrhage, Segmental resection,

INTRODUCTION

Placenta accreta is a condition characterized by abnormal adherence of placenta to myometrium. It is classified depending on the degree of invasion of placenta: accreta (<50% of myometrium), increta (>50%of myometrium) and percreta (invading serosa and adjacent organ). All are included in to the term- placenta accreta spectrum. Incidence of placenta accreta spectrum (PAS) has arisen over the past decade. This can be attributed to the increasing rate of caesarean sections from 1:2500 to 1:500.[1] The traditional management of PAS is peripartum hysterectomy in most of cases. Conservative management of placenta accreta includes all procedures through which we can avoid peripartum hysterectomy and thereby preserve the uterus. However, some conservative methods have been described in the literature like extirpative technique, leaving placenta in situ, one step conservative surgery (removal of accreta area) and triple p procedure.[2] Here, we are reporting a case where we had done one step conservative surgery in women with placenta accreta.

CASE REPORT

A 35year old woman G3P2A0 with 32 weeks of twin pregnancy with previous caesarean section with

complaints of premature rupture of membrane was admitted in emergency labour room. Patient had history of emergency laparotomy sixteen years back for uterine sepsis following a normal vaginal delivery of dead fetus.

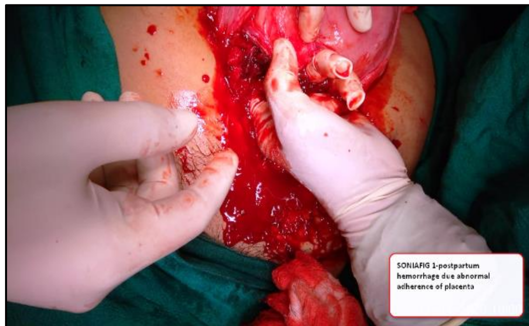

Figure 1: Postpartum haemorrhage due abnormal adherence of placenta.

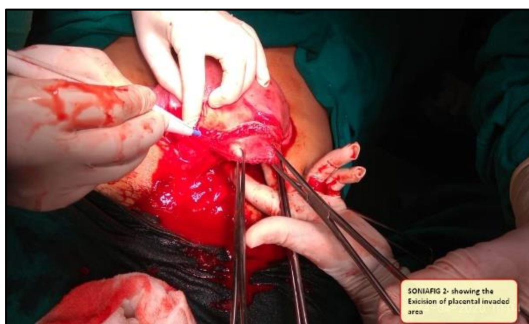

Figure 2: Excision of placental invaded area.

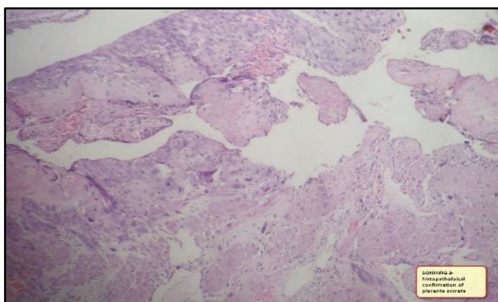

Figure 4: Histopathological confirmation of placenta accreta.

Figure 5: Cut section of excise utrine segment.

She had undergone caesarean section nine years back. Patient had history of genital tuberculosis for which she had taken antitubercular treatment. On admission, patient was hemodynamically stable. On abdominal examination, uterus was more than period of gestation, multiple fetal parts were palpated, presentation of first twin was cephalic; both fetal heart sounds were regular in rate and rhythm. Uterus was relaxed and no scar tenderness was found. On per speculum examination, clear liquor was present. She was kept on conservative treatment; steroid cover was given for prematurity. Patient went into preterm labour on third day of admission and delivered two live preterm babies (FI-1.19 kg, F2-1.78 kg) and both babies were transferred to neonatal intensive care unit. Placenta could not be removed after delivery. Manual removal of placenta was tried but placenta could not be removed completely and bleeding was excessive after the procedure. Twenty unit of oxytocin was given intravenously and 1000 microgram misoprostol was administered per rectally. On local examination there was no cervico-vaginal tear and laceration, upper segment of uterus appeared to be well contracted, lower segment ballooned up and bleeding was still excessive. Decision of emergency laparotomy was taken in view of morbidly adherent placenta. A 4×4 cm of bleb was present on upper margin of right end of previous scar on laparotomy. On palpation, there was defect in previous scar and part of placenta was adherent at this site as shown in Figure 1. As placenta could not be separated from this site, this part of uterus was excised in C-shaped manner as shown in Figure 2 and reconstruction of remaining margin was done. Bilateral uterine arteries were ligated. Hemorrhage was controlled. Two units of blood and fresh frozen plasma were transfused. Post-operative period of the patient was uneventful and she was discharged on sixth post-operative day. Gross cut section of excised part is shown in Figure 4 and histopathology slide (Figure 3) confirmed the placenta accreta in excised part of uterine segment.

DISCUSSION

Placenta accreta spectrum is a life threatening obstetric emergency becoming leading cause of peripartum hysterectomy. The incidence of PAS disorder was significantly increased, from one per 2490 deliveries (2007-2011) to one per 1034 deliveries (2017-2018) in our institution.[3,4] As exact pathophysiology of disease is unknown, but it is believed that abnormal invasion of trophoblastic tissue occurs into decidua basalis so risk factors of PAS disorder include history of previous caesarean delivery (CS), placenta accreta, uterine curettage, myomectomy, uterine anomaly, endometritis, multiparity, advance maternal age and smoking. The risk factors present in this patient were history of uterine sepsis (endometritis), previous caesarean section, advance age and multiparity. Risk of PAS disorders significantly increased as number of caesarean deliveries increased. Risk of placenta accreta was 3% with one caesarean section increased to 60% when women had history of 4 or more CS and history of placenta praevia.[5] The caesarean

scar pregnancy may diagnosed in first trimester if left untreated may associated with subsequent placenta accreta spectrum.[6] After vaginal delivery in PAS disorder in placenta accreta/increta is associated with placental retention with heavy menstrual bleeding and increase maternal morbidity to 6-7%.[7] A thorough history and examination of each pregnant woman will raise good suspicion of PAS disorder. Prenatal diagnosis of PAS is paramount in management; it helps in planning and timing of surgery. The antenatal diagnosis is highly desirable, obstetrical ultrasonography is modality of choice. Presence of placenta praevia in second and third trimester is most important ultrasonic association with PAS spectrum.[7] Most common ultrasound signs of morbidly adhere placenta are loss of normal hypoechoic zone between the myometrium and placenta, multiple lake and lacunae appear within the placenta and thinning of uterovesical wall. Color flow Doppler may add in diagnosis, most strongly associated findings are presence of turbulent flow, an increase in sub-placental vascularity or vessels bridging to placenta to uterine margin.[8] MRI is also a major antenatal diagnostic tool, useful in difficult cases like posterior placenta praevia, to assess depth of invasion and lateral extension.[9] The traditional management of PAS disorder had been peripartum hysterectomy in most of cases. However, some of conservative methods have been described in literature like extirpative technique (manual removal of the placenta), leaving the placenta in situ, one step surgery (removal of accreta area) and triple P procedure.[2] The American College of obstetrics and gynaecology recommends caesarean section hysterectomy in the cases of placenta accreta because removal of placenta associated with significant hemorrhage. Caesarean hysterectomy brings end to fertility and may cause serious social and psychological consequences. Now a day's various aspects of conservative approach describe in literature as mention above. We have to select most appropriate conservative treatment option to manage women with different type of placenta accreta spectrum. In this case we have done stepwise conservative treatment; firstly manual removal of placenta was attempted with simultaneous use of uterotonics, followed by balloon tamponade. When bleeding still continues, then decision of laparotomy was taken. During laparotomy focal placenta accreta segment was removed with bilateral uterine artery ligation and uterine reconstruction was done of remaining healthy margin, bleeding was stopped completely.

One step conservative surgery has been firstly described by Palacios-Jaraquemada.[10,11] This uterine sparing technique can be performed through modified pfannenstiel or midline incision.[11] It is done by resection of whole invasive myometrial tissue and the entire placenta in one piece tissue, achieve hemostasis followed by uterine myometrial reconstruction in two layers and do bladder repair if required.[11] One step conservative surgery is possible if 2 cm of healthy segment left above the uterine cervix and repair after resection is possible when segmental tissue destruction is less than 50% of axial circumference otherwise one should proceed for hysterectomy. There is low rate of reoccurrence in future pregnancy as complete removal of area invaded by placental tissue and uterine reconstruction done on surrounding healthy myometrial tissues.[11] A cohort study of 68 women were presenting with PAS disorder, uterine preservation of was achieved in 50 women, 42 women was available for follow up attained normal menstrual cycle and 10 women had successful, uneventful pregnancy and delivery with no reoccurrence of PAS disorders.[13] Shabana et al (2015) done a retrospective study on 71 women with PAS disorders and found that it was successful in uterine preservation in 65 women with slight variation that is selective devascularization of vessels that irrigate invaded area in combination with excision of that area.[14] A multicentric retrospective case series from tertiary hospital in Argentina, 452 patients who had suspicion of PAS disorder were includes in the study, 328 patients had a confirmed diagnosis of PAS by histology and surgical clinical finding. By using resective-reconstructive approach (one step conservative surgery), the uterus can be preserved in 80% of cases with minimum morbidity and reduced blood loss.[15]

CONCLUSION

Conservative and fertility sparing methods can be applied only in selected cases. One step conservative is very useful for low resource setting countries where expensive interventional radiology may not be available. Segmental uterine resection may be alternative to caesarean hysterectomy in case without placenta praevia.

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REFERENCES

1. Fitzpatrick KE, Sellers S, Spark P, Kurinczuk JJ, Brocklehurst P, Knight M. Incidence and risk factors for placenta accreta/increta/percreta in the UK: a national case-control study. PLoS One. 2012;7(12):e52893.
2. Sentilhes L, Kayem G, Chandraharan E, Palacios-Jaraquemada J, Jauniaux E. FIGO consensus guidelines on placenta accreta spectrum disorders: Conservative management. Int J Gynecol Obstet. 2018;140:291-8.
3. Malhotra V, Bhuria V, Nanda S, Chauhan M, Rani A. Placenta Accreta: Five year experience at a tertiary care centre. J Gynecol Surg. 2014;30(2):91-5.
4. Rani V, Jain S, Nanda S, Malhotra V, Chauhan M, Sangwan N. Placenta accrete spectrum-management and fetomaternal outcome at a tertiary care centre. Inte J Clinical Obstetrics and Gynaecology. 2019;3:10.
5. Silver RM, Landon MB, Rouse DJ, Leveno KJ, Spong CY, Thom EA, et al. Maternal morbidity associated with multiple repeat cesarean deliveries. Obstet Gynecol. 2006;107:1226-32.

6. Zosmer N, Fuller J, Shaikh H, Johns J, Ross JA. Natural history of early first-trimester pregnancies implanted in Cesarean scars. Ultrasound Obstet Gynecol. 2015;46:367-75.
7. Belfort MA. Publications Committee, Society for Maternal-Fetal Medicine. Am J Obstet Gynecol. 2010;203(5):430-9.
8. Comstock CH, Bronsteen RA. The antenatal diagnosis of placenta accreta. BJOG. 2014;121:2
9. Jauniaux ERM, Alfirevic Z, Bhide AG, Belfort MA, Burton GJ, Collins SL, et al. Placenta Praevia and Placenta Accreta: Diagnosis and Management. Green-top Guideline No. 27a. BJOG. 2018
10. Palacios-Jaraquemada JM. Diagnosis and management of placenta accreta. Best Pract Res Clin Obstet Gynecol. 2008;22:1133-48.
11. Palacios-Jaraquemada JM. Placental Adhesive Disorders. Berlin/ Boston. Walter de Gruyter. 2012.
12. Palacios-Jaraquemada JM. One-Ste Conservative Surgery for Abnormal Invasive Placenta (Placenta Accreta–Increta–Percreta). In: A Comprehensive Textbook of Postpartum Hemorrhage. An essential clinical reference for Effective Management. Arulkumaran S, Karoshi M, Keith LG, Lalonde AB, B-Lynch C, eds. 2nd Edition. London: Sapiens Publishing GLOWM. 2012;263-71.
13. Palacios-Jaraquemada JM, Pesaresi M, Nassif JC, Hermosid S. Anterior placenta percreta: Surgical approach, hemostasis and uterine repair. Acta Obstet Gynecol Scand. 2004;83:738-44.
14. Shabana A, Fawzy M, Refaie W. Conservative management of placenta percreta: A stepwise approach. Arch Gynecol Obstet. 2015;291(5):993-8.
15. Palacios-Jaraquemada JM, Fiorillo A, Hamer J, Martínez M, Bruno C. Placenta accreta spectrum: a hysterectomy can be prevented in almost 80% of cases using a resective-reconstructive technique. J Matern Fetal Neonatal Med. 2020;1-8.

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