

Novel Presentation of Placenta Accreta Spectrum

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ABSTRACT

Placenta accrete spectrum (PAS) previously known as morbid adherent placenta, is a complex obstetric complication that has risen exponentially in the last couple of decades. It carries serious fetomaternal risk in terms of morbidity and mortality, also increasing perinatal mortality owing to prematurity. PAS include three variants depending upon the degree of placental penetration, i.e. accrete, increta and percreta. We highlighted the unique diagnostic criteria of the placenta accrete spectrum, which includes the history of incomplete removal of the placenta, with repeated evacuation, persistent vaginal bleeding and ultrasound evidence of retained products of conception.

Keywords: Morbid adherent placenta, Placenta accrete spectrum, Placenta percreta.

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INTRODUCTION

As the number of placenta accrete spectrum (PAS) cases has risen, so has an awareness of the problem and its management in the form of identifying the risk group localizing the placenta at the time of 18-20 weeks scan and triaging the anterior low lying (previas) to high risk accretes, however the important thing is to emphasis on identifying and recognizing its prevalence in pregnancies at an earlier gestation better less than 24 weeks.¹ It is also important to understand the placental development, adherence, and encroachment into the previous uterine scar and weak area of the myometrium.² In routine, it is seen that mother healthcare providers assume all cases of continuous bleeding per vagina following an incomplete miscarriage, most likely due to retained products of conception, as happened in our case report, which led to severe maternal morbidity.

Case-1

A 30-year-old booked case at CMH Bahawalpur, para 4, with four previous cesareans and one first-trimester surgical evacuation. She has one admission at eight weeks as threatened and managed conservatively. However, she was brought to the Gynaecology outpatient department on 12th July 2021 on the routine antenatal day in a precarious condition, with a history of the expulsion of the fetus and product of conception at 18 weeks of pregnancy on 22nd June 2021.

She was attended to at home by the local birth attendant, who removed clots, labelling them as

products of conception; however, the patient continued to bleed and was taken to the local clinic, where the midwife attempted ERPC under some sedation. She was transfused with two units of RCC and stabilized. Impression was given to a family that traditional birth attendants probably missed placental pieces. She was hemodynamically stable and taken back home, but she was not symptom-free and had continuous bleeding per vagina, pain lower abdomen, and lethargy. No history of unconsciousness, vomiting and constipation.

She was markedly pale and was running high-grade fever up to 1020 and had the passage of clots for the last three days. On 24th June, she consulted a doctor in civil setup who performed her ultrasound, and a diagnosis of RPOCs was made for the third time patient underwent evacuation for the third time with the same suspicion of retained products of conception. She was transfused four units of RCC because of a massive bleed and later with one dose of injection Venofer (parenteral Iron).

She was markedly pale and dehydrated on the day of the presentation in Combined Military Hospital, Bahawalpur Pakistan (10th July 2021). Her blood pressure was 90/60mm of Hg, and her pulse was 110/ min. She was febrile, running with temp 102 F. There was no pedal oedema and no clubbing on examination. There was generalized abdominal tenderness. Pelvic examination revealed foul smelly lochia with blood clots in the cervical os Uterus was 16-18 weeks in size.

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and was taken to the local clinic, where the midwife attempted ERPC under some sedation. She was admitted with a differential diagnosis of puerperal sepsis, Gestational trophoblastic disease/Gestational trophoblast neoplasm, and placenta accrete spectrum.

The plan was examined under anaesthesia, and proceed laparotomy after stabilization of the general condition. Ultrasound showed an 8.1x7.2cm hyperechoic area seen in the uterine cavity reported as retained products of conception by the radiologist. The patient was given Intravenous antibiotics. Blood and blood products were arranged, and high-risk consent for obstetric hysterectomy was obtained.

Diagnosis of PAS was made (based on the patient's history and ultrasound findings). The patient started bleeding after 6 hours of admission; with high-risk consent and preparation, the patient was shifted to OT for an obstetric hysterectomy. History of Persistent vaginal bleeding, recurrent episodes of massive haemorrhage, and massive transfusion, with ultrasound evidence of retained placenta, strongly led to the diagnosis of PAS.

The patient was draped in a supine position under general anaesthesia. The skin was opened through a midline infra umbilical incision. Per operative, findings included a 16-week size uterus with a thinned and ballooned-up lower segment. The placenta was anterior, occupying the lower uterine segment with tortuous blood vessels invading and eroding the bladder. Placental tissue was foul smelling and putrified, adhered to the uterus confirming the PAS. An obstetric hysterectomy was done with the conservation of both ovaries. Hemostasis was secured with great difficulty due to tortuous vesical plexus. The patient was transfused five units of RCC, three units of platelet and seven units of FFP. The drain was placed in POD. Peritoneal lavage was done with normal saline, and the abdomen was closed in reverse order. The placenta and uterus were sent for histopathology and placental tissue for culture and sensitivity. The patient was shifted to ICU for post-operative care.

On the first post-operative day, the patient was mobilized and allowed to take clear fluids. However, the drain was empty since surgery, so it was removed on the second post-operative day, along with the change of dressing.

The patient was discharged in satisfactory condition on the fourth post-operative day and was called for follow-up after ten days. She followed up in the Gynaecology Outpatient Department with a

histopathology report and for the removal of stitches. Histopathology confirmed the placenta accrete spectrum.

Case-2

A 34-year-old booked case at CMH Bahawalpur, para 2, with two previous cesareans and six first-trimester missed miscarriages followed by surgical evacuation. She was diagnosed case of IDDM. She booked herself at 19 weeks, and a doppler ultra-sound showed an anencephalic fetus with a placenta accrete spectrum (placenta anterior completely covering the os with encroachment into myometrium and bladder, showing the possibility of adherence). She was advised admission on 17th August 2021 for pregnancy termination and control of diabetes. She took oral hypoglycemic agents with insulin injections regularly, 30 units in the morning and 20 units in the evening, but her blood sugar level was uncontrolled. A medical specialist reviewed her for glycemic control. Consent for termination of pregnancy by hysterotomy was taken. The family was counselled for the risk of obstetric hysterectomy, massive transfusion and expected prolonged hospital stay as PAS was diagnosed on doppler ultrasound and the basis of her history of repeated evacuations.

The plan was hysterotomy on 20th August 2021 after stabilising the general condition and controlling diabetes.

The patient was draped in a supine position under spinal anaesthesia. The skin was opened through a Pfannenstiel incision. Per operative findings included a 20-week size uterus with thinned and ballooned-up lower segment, an anencephalic baby boy delivered with APGAR score of 4/10-4/10. placenta was anterior, densely adhered to the uterus, occupying the whole of the lower uterine segment with tortuous blood vessels invading and eroding the bladder confirming the PAS. (History of six curettages and two cesarean sections). An obstetric hysterectomy was done with the conservation of both ovaries. Hemostasis was secured with much difficulty due to the tortuous vesical plexus. The bladder was repaired. The patient was transfused to six units of RCC, five units of cryoprecipitate and six units of FFP. The drain was placed in POD. Peritoneal lavage was done with normal saline, and the abdomen was packed with abdominal sponges to give pressure to achieve hemostasis. The skin was approximated with an interrupted suture by using prolene. Uterus was sent for histopathology. The patient was shifted to ICU for post-op care. Post-

surgery, the family was counselled in detail regarding per-operative and post-operative complications.

Her fresh haemoglobin just after surgery was 11.1gm/dl. After 10 hours of surgery, the patient oozed from the wound site. Her dressing was soaked, so she removed it. There was fresh ooze from the wound. A pressure dressing was done. Her haemoglobin dropped to 5.5gm/dl. She was in DIC secondary to massive PPH. She was transfused eight units of whole blood, 32 units of fresh frozen plasma, 12 cryoprecipitate and 22 units of platelets.

On 23 August, she was Re-explored for intraperitoneal bleeding. Packs were removed, and peritoneal lavage was done. The drain was placed in a pouch of Douglas. The abdomen closed in reverse order, and Pressure dressing was done. The patient was shifted back to ICU for post-operative monitoring.

Post-operative recovery was smooth. Her glycaemic control was achieved with insulin NPH and Regular Humulin R injections.

Before discharge, on the third post-operative day, Her haemoglobin was 13.8gm/dl.

On the fourth post-operative day, discharge was planned. However, the patient was in satisfactory condition and was called for a follow-up after 12 days. She followed up in the Gynaecology outpatient department with a histopathology report, and for the removal of stitches, Catheter was removed on the 14th post-operative day. Histopathology confirmed PAS.

DISCUSSION

Postpartum haemorrhage is the leading cause of maternal morbidity and mortality. It is the fifth most common cause of maternal death worldwide. It was reviewed that placenta accrete spectrum is one of the main reasons for PPH and has to be treated with surgical procedure obstetric hysterectomy.³

The incidence of the morbid adhered placenta has increased worldwide due to the rise in caesarean section rates, from 1 in 2500 pregnancies to 1 in 500 pregnancies⁴ In our case report, repeat caesarean section and multiple attempts of curettage were the main risk factors. Our patient reported hypotension and tachycardia secondary to PPH, so assessment of vitals, general condition of patients and blood loss is mandatory.

The patient was prepared on clinical grounds for an Obstetric hysterectomy after detailed counselling of

the family. It was discussed in another study conducted in which it was emphasized that detailed antenatal optimization and management plan should be individualized and documented. Unit protocol for replacement of blood loss in these patients has to be followed.^{5,6}

Clinical approach and diagnosis have to be improved in cases presenting with previous surgeries and attempts of curettage along with persistent bleeding in post-abortion period. A team-based approach to the patient with PAS, along with a definite delivery plan, will reduce complications and improve obstetric outcomes.

Conflict of Interest: None.

Author's Contribution

Following authors have made substantial contributions to the manuscript as under:

VA: Conception, drafting the manuscript, critical review, approval of the final version to be published.

RS: Critical review, drafting the manuscript, approval of the final version to be published.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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