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A Case Report of Emergency Obstetric Hysterectomy after Conservative Management of Placenta Accreta

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Abstract

Obstetric hemorrhage is a significant and potentially life-threatening complication associated with both vaginal and cesarean deliveries. One common etiology is placenta accreta, a condition characterized by the abnormal adherence of the placenta to the myometrium. The primary modality for diagnosing placenta accreta is ultrasonography, although magnetic resonance imaging (MRI) is often employed to assess the extent of placental invasion. Managing placenta accreta requires a multidisciplinary healthcare team due to its complexity and associated risks. While hysterectomy is frequently the treatment of choice, conservative management approaches may be considered in carefully selected cases.

Keywords: *Cesarean-Hysterectomy, Conservative Management, Placenta Accreta Spectrum, Postpartum Hemorrhage, Transfusion.*

Introduction

Postpartum hemorrhage (PPH) is a serious condition caused by excessive, life-threatening bleeding [1] during pregnancy. Postpartum complications include uterine atony, residual tissue/placental involvement, genital trauma, and bleeding disorders [2]. Placenta accreta Spectrum (PAS) is a condition in which the placenta does not come out or separate after birth, causing severe pain and death [3]. According to histological characteristics, it is divided into three levels: placenta accreta, placenta accreta, and placenta accreta. PAS development involves many risks. Previous cesarean section was the most common risk factor, and the risk of PAS increased with the number of previous cesareans. Women with placenta previa, especially if it covers the uterine scar, are at higher risk and should be carefully evaluated for PAS [6]. However, any surgery that may damage the endometrium, such as myometrial resection, curettage, manual placentatomy, or uterine artery embolization [7], can cause PAS. Other risk factors include older age, higher parity, previous diagnosis of PAS, in vitro fertilization (IVF) [8], smoking [9], Asherman syndrome [10], and uterine mucosal abnormalities such as fibroids and polyps [11]. Placenta accreta, once rare, with an estimated incidence of 1 in 30,000 pregnancies in the 1960s, has now become an obstetric complication, occurring in an estimated 1 in 533 pregnancies [12] increase the incidence of caesarean deliveries [13]. Early (20 detection of PAS during pregnancy is important because planning to refer to a tertiary hospital before delivery or blood can improve outcomes for mother and child [14]. PAS can be suspected during pregnancy but usually occurs in the second and third trimesters [14]. Obstetric ultrasound is often used for prenatal diagnosis, and placenta previa leads to suspicion of PAS, as placenta previa accounts for more than 80% of cases. Gray scale abnormalities associated with PAS include increased vascularity in the

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placenta, loss of the normal hypoechoic area between the placenta and myometrium, decreased retroplacental myometrial thickness, and extension of the placenta into the serosa of the myometrium [16]. Magnetic resonance imaging (MRI) is an additional diagnostic tool for PAS based on ultrasound findings, especially in high-risk women, allowing accurate assessment of depth of invasion regardless of placental site or maternal body index [7]

The gold standard treatment of invasive placentation is Cesarean hysterectomy. The recommended gestational age for planned cesarean birth and hysterectomy is 34–35 + 6/7 Weeks of gestation [17]. Traditionally, a cesarean hysterectomy is performed with the placenta left in situ after the Fetus is delivered. Delayed hysterectomy is another possible Surgical treatment option for PAS, where a scheduled hysterectomy can then be arranged 3–12 weeks postpartum, giving the advantage of less blood loss since the uterine perfusion Decreases after delivery [7]. Temporary blockage of internal Iliac arteries before the cesarean section is also an efficient Way of managing placenta previa–accreta, since it decreases the intraoperative blood loss and the need for blood transfusion, while it minimizes the need of emergency obstetric Hysterectomy [18–21]. When fertility preservation is desired, Conservative management can also be considered. The placenta is either entirely removed or the part of it that is Adherent to the myometrium is left in situ, with the aim to Preserve the uterus. A Bakri balloon can also be used in Order to reduce bleeding when conservative management is Performed [22].

Case Presentation

A 27-year-old woman (G2, P1L1) underwent cesarean section due to failed labor during her first pregnancy. The patient was treated for endometrial polyps 6 years ago. The patient had not received the same care during her current pregnancy and was admitted to Balaji Medical College Hospital in the 38th week of her pregnancy with the complaint of contraction and scar tenderness Internally, there were no other symptoms other than spotting pv, and the fetus was confirmed to be viable with normal amniotic fluid and biometrics in an ultrasound examination. Ultrasound examination clearly showed the placental margin covering the interior of the cervix (Figure 1). Blood tests were as follows: WBC 8850/μL, hematocrit (Hct) 32%, hemoglobin (Hb) 10.5 g/dL. Upon examination, the cervix was dilated by 3 to 4 cm, and the patient's uterine contractions occurred three times at 10-minute intervals. Based on clinical studies and medical history, the need for emergency delivery was discussed with the patient, during which she expressed her desire to become pregnant. We carefully explain to our patients that this may be an option if they can control their postpartum hemorrhage. But in other cases, a hysterectomy may be the only option to save her life.

Figure 1. Transvaginal Ultrasound Shows the Anterior Edge of the Placenta 2.29 cm from the Internal os on the Day the Woman Presented at the Hospital

The operation was performed by the obstetric care team. later general anesthesia and the opening of the abdominal wall, the presence of several large vessels in the bladder region was observed. A displacement of the bladder was carried out followed by a transverse section of the uterus on the lower part of the uterus to avoid the placental bed. A full-term female baby weighing 2740 g was born. After one incomplete spontaneous detachment of the placenta, most of the placental tissue was removed by hand, while the attached segment was left intact in the uterus. (Figure 2) During placenta extraction, blood loss was estimated at approximately 650 ml and the conservative management plan was maintained, as the patient was hemodynamically stable. To control the bleeding, hemostatic sutures and two Tachosil collagen sponges were used, and a bakirir balloon was inserted into the uterus and filled with 400 ml of saline. An abdominal drain was placed in a Douglas pouch and the abdomen was closed with diligent hemostasis. Intraoperative complete blood count revealed a Hct of 27.7% and an Hb of 9.2 g/ dl, and at the end of the surgery the woman, who was hemodynamically stable, was transferred to the postoperative recovery room under close supervision.

In view of continuous vaginal bleeding T. misoprostol 1,200 µg was administered rectally. She was sent to the recovery room for close monitoring. However, PPH is not adequately controlled. After the patient was informed of her life-threatening condition, it was decided to perform an emergency hysterectomy. Within 30 minutes, the woman was transferred back to the operating room and underwent emergency surgery under anesthesia. During the operation, blood pressure drops to 70/50mmHg, and the patient's heart rate increases to 150bpm. After the surgical team assessed that the bleeding was life-threatening, the peritoneum was opened and a blood transfusion was started. Bilateral iliac artery ligation was performed, followed by hysterectomy and bilateral salpingo-oophorectomy. To ensure adequate hemostasis, each bleeding point was minimally clamped with Mosquito Kelly forceps, held with another Mosquito Kelly forceps, and then tied with 2-0 silk sutures. Postoperative labarotory test reports reveals Hct 17.1% and Hb 5.8g/dl. This patient is haemodynamically unstable and requires abdominal compression to prevent complications such as hypothermia, coagulopathy, acidosis, and uncontrolled bleeding. The woman, whose abdominal wall was closed in layers, was intubated and sent to the intensive care unit. The second surgery took 2 hours and the estimated blood loss was 800 ml. The uterus was sent for histopathological examination (figure 3), and the diagnosis of PAS was confirmed. The placenta penetrates the myometrium but does not affect the uterine serosa. Three days later, when his condition improved and his vital signs appeared, a second laparotomy was performed to relieve the swelling. Since the bleeding had completely stopped and the woman was hemodynamically stable, she was sent to the obstetrics room and was happily discharged the next day. There were no complications in the patient who was admitted to the hospital again forty days after the surgery.

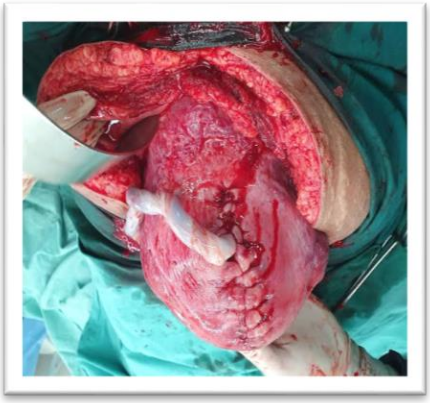

Figure 2. After the Baby was Delivered the vplacenta was Left Insitu and Uterine Wall Closure was Performed Before Hysterectomyí

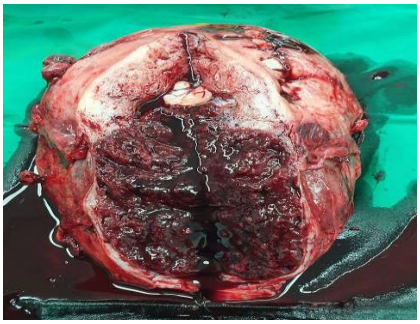

Figure 3. The Uterus was Sent for Pathological Examination which Confirmed the Diagnosis of Placenta Accreta Spectrum Disorders

Discussion of Research Findings Although PAS was rare in the past, it has become more common today and has begun to be accepted as a cause of maternal morbidity and mortality. The main risk factor is previous cesarean section with placenta previa, so the increase in its incidence indicates an increase in the number of diseases in the world (3). PAS incidence of the anterior placenta is more common after previous cesarean section. However, posterior placental PAS has been described in the literature and is associated with delayed diagnosis, surgical intervention, obstetric services, and less frequent cesarean section than anterior location [23]. Other risk factors that should be of interest to physicians are previous surgeries affecting the endometrium, such as removal, in vitro fertilization, maternal age, and smoking [7,9]. Early diagnosis is important to improve outcome because women with PAS at level III or IV need to be treated by a different team. Since PAS can be fatal, hysterectomy is the most common treatment option [24]. Medical care should only be considered if studies show that a hysterectomy would be difficult, cause heavy bleeding, retain the placenta, or the woman refuses to lose the pregnancy [7]. One of the most effective ways to control bleeding from a negative organ is the insertion of a balloon vascular catheter because it can reduce the amount of blood in the blood vessels and prevent hysterectomy [2023]

Conclusion

Although hysterectomy is a common procedure to treat placenta accreta. we tried to do conservative management to control the bleeding, hemostatic sutures and two Tachosil collagen sponges were used, and a bakirir balloon was inserted into the uterus and filled with 400 ml of saline. An abdominal drain was placed in a Douglas pouch and the abdomen was closed with diligent hemostasis. Inspite of

all the above mentioned measures patient was heamodynamically unstable .so we did Emergency caserean Hysterectomy.

Here are the Other Conservative Management Strategies for PAS:

Uterine Artery Embolization: Used to reduce blood flow to the uterus, minimizing hemorrhage risk.

Methotrexate Therapy: Sometimes used to accelerate placental involution, although its effectiveness is debated.

Monitoring for Infection or Secondary Bleeding: Patients may require long-term follow-up, with the risk of delayed complications like infection, bleeding, or the need for subsequent surgical removal of the placenta.

Blood transfusions or iron therapy may be required to manage anemia due to ongoing low-level blood loss.

Interventional Radiology

Uterine Artery Embolization: Postpartum embolization can help control bleeding in cases of conservative management where immediate surgery is not performed.

Factors Affecting Management Decisions:

Extent of Placental Invasion: More severe cases like placenta increta and percreta often require surgical intervention.

Desire for Future Fertility: Conservative management is considered in women who wish to preserve fertility but comes with significant risks.

Institutional Capabilities: Access to blood products, interventional radiology, and experienced surgical teams can influence the choice of management.

Maternal and Fetal Health: Immediate or delayed intervention depends on the stability of both the mother and the fetus.

In conclusion, the management of PAS should be highly individualized, with conservative approaches reserved for well-selected cases, and cesarean hysterectomy being the definitive treatment for most severe cases. The goal is always to balance maternal safety with the desire to preserve fertility when possible.

Conflicts of Interest

The authors declare that they have no conflicts of interest

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