



REPORT OF SAVING A MOTHER'S LIFE FROM FATAL PLACENTA PREVIA PERCRETA

Atie Mansouri¹, Paiman Rezagholy², Mahboubeh Rostami³,
Gholamhossein Kazemzadeh⁴, Mostafa Sadeghi^{5*}

1. Associate Professor, Department of Obstetrics and Gynecology, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran
2. MSc student surgical technologist Iran University of Medical Sciences, Tehran, Iran
3. Obstetrician-Gynecologist, Mehr (Hazrate Abbas) Hospital, Mashhad, Iran
4. Assistant professor, Vascular Surgery, Mashhad University of Medical Sciences, Mashhad, Iran
5. Student Research Committee, School of Nursing and Midwifery, Iran University of Medical Sciences, Tehran, Iran

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ABSTRACT

Introduction: Postpartum hemorrhage is the most common cause of post partum hysterectomy, which is especially caused by abnormal placental attachment and marks one of the most tragic events in midwifery. With the unbridled hike in the number of cesareans, complications such as abnormal placental attachment and ectopic pregnancy in the caesarean scar can pose tremendous dangers.

Case study

The subject was a 34 years-old woman with a history of previous caesarean and abortion. Cesarean was performed through classical incision and the infant was delivered healthy. Since the uterus was filled with varicose veins in lower segment in the anterior and posterior zone, laparotomy with midline incision was performed above the navel. hysterectomy was started and the patient's right ovary was preserved, but the left ovary was removed.

Discussion

In the present study, there was a history of caesarean. Sonography is the most common radiological method utilized for detection of abnormal placental attachment. In the present patient, since the placenta was both posterior and low lying, due to high probability of abnormal placental attachment, more accurate diagnostic interventions before delivery such as vaginal sonography and Doppler were implemented.

Conclusion

The only thing that can save the life of a patient in case of abnormal placental attachment is preparation. The pregnancy age for this operation should be lower approximately in week 34. This requires an experienced team and an equipped center.

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Introduction

Postpartum hemorrhage is the most common cause of post partum hysterectomy, which is especially caused by abnormal placental attachment and marks one of the most tragic events in midwifery. Abnormal placental attachment is classified into three categories in terms of its degree of the invasiveness: 1) accreta placenta in which placenta villi are attached to the decidua surface. 2) increta placenta in which placenta villi have penetrated into the myometrium. 3) Percreta placenta in

which placenta villi are attached to uterus serous and its surrounding organs [1]. The abnormal placenta attachment is diagnosed based on two pathological and clinical criteria. After delivery, the placenta is usually separated automatically, so that any complication in its separation or the need for surgical procedure for the delivery of the placental is regarded as a clinical symptom of accreta placenta. Another clinical symptom is uncontrolled bleeding in the spot of removing placenta after delivery or cesarean [2]. The reported prevalence rate of abnormal placental attachment was 1 in every 500 pregnancies in 2015 [2-3] and its prevalence has increased by 11 times in the last 51 years, mainly due to the higher rate of previous cesareans, which has increased abnormal placental attachment to 8.7% [2]. Zelpo et al. (1993) and Glazv et al. (2008) reported that one-third to two-thirds of the peri partum hysterectomy was due to uncontrollable hemorrhage from the spot of placental implantation in abnormal placental attachment [4-5]. With the unbridled hike in the number of cesareans, complications such as abnormal placental attachment and ectopic pregnancy in the caesarean scar can pose tremendous dangers [6].

The importance of reducing the rate of cesarean has been emphasized since 1974, but figures in United States increased from 5.5% in 1970 to 31.8% in 2007 [6]. The risk of spontaneous rupture exists in both abnormal attachment and in cesarean scar pregnancy, so that in some cases, patients with hemorrhagic shock were admitted to medical centers without any previous symptoms.

7-10% of maternal mortality and 90% of fetal deaths (mainly due to prematurity) have been reported [7]. The safest treatment method is cesarean with planned hysterectomy but in rare cases when it is necessary to preserve fertility, or due to attachment to adjacent viscera, there is high chance of uncontrolled bleeding, conservative treatment can be considered [7]

6% morbidity 7% mortality with placenta accreta has been reported in women. To this figure, infant perinatal complications should be added [8]. Every woman with a history of caesarean or abortion or any type of uterus surgery and placenta percreta, especially anterior placenta, are at increased risk of placenta accreta. The most common cause of hysterectomy during the previous cesarean was uterus atonic, but it has been replaced by abnormal placental attachment [9]. Since hysterectomy ensuing percreta placenta in women with the history of cesarean is rare, this study intended to report a rare case of saving the life of a mother from fatal complication of uterus placenta pervia percreta.

Case study

The subject was a 34 years-old woman with a history of previous caesarean and abortion. The patient had gestational diabetes in the past, which had been controlled by diet. She was in week 34 of pregnancy. In the analysis of latest ultrasound, the image of a living fetus with the FHR-unit natural movement and tonicity along with cephalic presentation was observed. AF was normal and GA was W34 and D5 based on BPD-FL. In examination with color Doppler, anterior placenta percreta images were observed. In these images, the blurring image of posterior placenta hypoechoic zone along with lacunar vessels and lake accreta were observed in the inferior and lower placenta zone. The findings suggested accreta and percreta. The placenta was planted in the lower segment and posterior wall of the uterus and the cervix mouth was covered completely. There was the possibility of placenta attachment to the uterine myometrium. In the first night of admission, the patient was taken to the operation room to terminate pregnancy caused by percreta. Cesarean was performed after general anesthesia through classical incision and the infant was delivered healthy. Since the uterus was filled with varicose veins in lower segment in the anterior and posterior zone, laparotomy with midline incision was performed above the navel. There were many varicose veins all the way to pelvic floor and through the left large ligament and also extremely large vessels in the anterior and posterior of the placenta, which was reputed and punctured when the uterus was removed and thus led to bleeding.

Placenta had exerted great pressure on the surrounding area so that the entire cervix had been covered. Due to the intensity of varicose veins, the ligation of epigastric vein was performed, which considering the traumatization of epigastric vein with pressure on the left iliac artery, a vascular surgeon and general surgeon were called with previous arrangement. We expanded the incision of skin and due to the heavy bleeding, aorta was cross-clamped and hypogastric arteries were ligated. Because the common iliac vein was also damaged, the vena cava was clamped with silk threads. After clamping, ligation and hemostasis of internal iliac vein on both sides, hysterectomy was started and the patient's right ovary was preserved, but the left ovary was removed.

In both right and left sides, the placenta had penetrated into the round ligament causing bleeding, so to save the life of patient, several sutures and clamps were made and the uterus was completely removed. The bladder was open due to the penetration of placenta. The placenta had severely affected the vaginal cuff and it was sutured and repaired.

The left large ligament bleeding still persisted, so we had no chance but to make several sutures. Despite the possibility of ureter's closing on two sides, the common iliac vein was sutured to save the patient's life and then the aortic suture was removed. Since the placenta had filled the bladder and covered the area from the posterior wall of the uterus to the serous, and the entire hip and intestines had grown adhesive, the ureter was closed on both ends and an urologist surgeon was called upon to examine the condition of the patient. Accordingly, the urologist recommended temporary urethrostomy, and the treatment and modification of urinary system was postponed to another operation due to the critical situation of the patient. The bladder was repaired in two layers and bilateral urethrostomy was performed. The ureters were attached to the skin by canter. Although the arteries were repaired and bleeding was stopped, due to the bleeding and low oozing, the abdomen was

filled with several gauzes and the operation was ended. During the operation, 26 units of blood, 15 units of cryo, 15 units of platelets and 13 units of FFB were injected to the patient.

Moreover, CPV line was inserted through the right subclavian of the patient and she was taken to ICU. Two days later, the patient was returned to the operating room to examine bleeding and remove gauzes. She was subject to laparotomy and gauzes were taken out followed by a thorough examination. The patient's abdomen and pelvis were washed with abundant serum and due to adhesion and the possibility of bleeding, re-implantation was rejected to be scheduled for the next three months. Finally, a drain was inserted and the abdomen was sealed. The patient was transferred to the ICU for another 3 days and then transferred to the ward. She was discharged after 3 days.

Discussion

As the number of previous cesareans grow, the incidence of placenta accreta and percreta is increased. The incidence of such cases in the United States in the period between 1930 and 1950, was 1 in 30,000 cases, and this figure increased to 19,000 births between 1950 and 1960. In 1980, 1 in 7000 cases and from 1994 to 2002, with a fourfold increase, 1 in 2000, or 1 in 2500 or even 3 in 1,000 cases were estimated in the previous decade [6]. These changes highlighted the importance of early detection and proper diagnostic approach, familiarity with this condition and awareness of the fact that the attachment usually occurs in the previous cesarean scar, which helps the surgeon deal with the patient with preparation.

In the present study, there was a history of caesarean. In this patient, Doppler of anterior pervia placenta images were observed. In these images, the hypochoic zone blurring of posterior placenta along with lacunar vessels and lake accreta were observed in the inferior and lower placenta zone. The findings suggest that accreta and percreta was planted in the lower segment, and posterior wall of the uterus and the cervix mouth was covered completely. There was the possibility of placenta attachment to the uterine myometrium.

Sonography is the most common radiological method utilized for detection of abnormal placental attachment. The use of Doppler sonography helps early detection of this complication and the vaginal probe is a better indicator of the separation between the placenta and lower uterine segment, especially in cases of posterior pervia placenta [10]. In the present patient, since the placenta was both posterior and low lying, due to high probability of abnormal placental attachment, more accurate diagnostic interventions before delivery such as vaginal sonography and Doppler were implemented.

In a study on 60 women, the uterus was successfully preserved in 80% of patients and 6.1% of them experienced pregnancy in the future [11]. In another retrospective study in France, 6% mortality and 78% success was reported [12]. The clinical side effects reported for placenta pervia percreta included: massive hemorrhage (on average, each patient lost 3-5 liters of blood), consumption coagulopathy disorder, respiratory distress, chronic renal failure and eventually death of the mother [13].

In the study of Bagman et al (2008) a maternal mortality rate of 7% was reported and maternal complications including intravascular coagulopathy percreta pervia placenta, sepsis and deep vein thrombosis were observed [13]. Fortunately, none of these complications were observed in our patient. Hysterectomy in patients is often associated with complications such as cystostomy (15.4%), ureteral injury (2.1%), pulmonary embolism (2.1%) and ICU admission (26.6%) [13]. In the study of Vahdat et al, a patient was admitted to ICU for 10 days [14]. The present patient was admitted to ICU for 5 days and no other complications was observed. In the study of Pourali et al, old age was the main cause of placental attachment, but in our patient, the previous cesarean was a major cause of attachment. In a study by Wright et al (2011) an average blood loss of 3 liters and packed cell reception of 5- units was reported [15]. Moreover, in the study of Pourali et al, 8 units of packed cell was injected [16]. Vahdat et al reported an average blood loss of 7 liters so that 20 units of blood, 15 units of FBB and 15 units of platelets were injected during and surgery [14]. In our patient, the estimated blood loss was greater, so 69 units of blood product (26 units of blood, 15 units pf cryo, 15 units of platelets and 13 units of FBB) were injected. The heavy bleeding and reception of more packed cells could be due to conservative treatment and attempts to preserve the uterus of the patients, which prolonged the operation time, bleeding time and therefore increased hematocrit loss.

In most cases, placenta percreta pervi occurs during the third trimester of pregnancy but uterine rupture, as one of complications associated with percreta placenta, can occur after 14 weeks [17]. In our patient, the disorder was observed in the late second trimester and serious complications including bleeding and the need for extensive therapeutic measures and finally hysterectomy after caesarean were observed.

Conclusion

The only thing that can save the life of a patient in case of abnormal placental attachment is preparation. The pregnancy age for this operation should be lower (approximately in week 34). This requires an experienced team and an equipped center. In patients with a history of uterus surgery and manipulation who are experiencing pervia placenta during their recent pregnancy, the possibility of abnormal placental attachment should be taken into consideration or at least the preparation for hysterectomy have to be made. Great precautions should be taken to detect placental replacement, and if required, more accurate diagnostic methods such as trans-vaginal sonography at earlier pregnancy age and Doppler sonography and MRI at later pregnancy age have to be adopted to determine the correct replacement of placenta or its attachment situation.

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