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Case Report

Conservative management of placenta percreta: A case report

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Deepak Patil⁵**¹Classified Specialist, Gynae Oncosurgeon, Department of Obstetrics and Gynaecology, Command Hospital, Pune, India²HOD & Reproductive Medicine Specialist, Department of Obstetrics and Gynaecology, Command Hospital, Pune, India³Commandant, Base Hospital, Bengdubi, India⁴Reader, Fetal Medicine specialist, Department of Obstetrics and Gynaecology, AFMC, Pune, India⁵Reproductive Medicine Specialist, Department of Obstetrics and Gynaecology, Command Hospital, Pune, India***Correspondence Info:**

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E-mail: mktangri@rediffmail.com**Abstract**

Morbidly adherent placenta is a rare complication of pregnancy associated with high maternal morbidity. It may cause massive haemorrhage thereby requiring emergency hysterectomy. We present a case of placenta percreta which was managed successfully by conservative management.

Keywords: Placenta percreta, Methotrexate, B hcg, Hysterectomy, ultrasonography

1. Introduction

Morbidly adherent placenta occurs when there is a defect of the decidua basalis, resulting in abnormally invasive implantation of the placenta. The three subtypes are placenta accreta vera (attachment to the myometrium without invasion), placenta increta (subtotal invasion into the myometrium), and placenta percreta (total invasion into the myometrium including perforation through the uterine serosa). About 80% of cases are placenta accreta vera, 15% increta, and 5% percreta[1]. Abnormal placentation is associated with increased maternal morbidity and mortality. Often a hysterectomy is required to prevent potential life threatening complications, which inevitably leads to loss of fertility.

Here we report a case of placenta percreta diagnosed intrapartum and managed conservatively, thereby, preserving fertility.

2. Case report

A 21 yrs old P₁ lady was referred from periphery to our tertiary care hospital, as a case of placenta percreta. Her obstetric history revealed antenatal period to be uneventful. There was no history of any abortions or surgery in the past. She had a spontaneous vertex delivery at 40 weeks period of gestation. Following delivery, placenta failed to expel for an hour. Manual removal was tried under general anaesthesia and partial removal of placenta could be achieved. Two units of blood transfused in the immediate post op period. On the same post partum day ultrasonography revealed retained placenta with myometrial thinning, predominantly in the fundal region along with few intraplacental lakes. MRI done on second post partum day was also suggestive of placenta percreta. On post partum day 4 patient was referred to our hospital for further management.

On arrival, patient continued to have mild vaginal bleeding. She was started on IV antibiotics. Her serum β hCG level was 5010 IU/ml and injection methotrexate (60mg) was administered intramuscularly.

Repeat ultrasound with Doppler on day 7 showed similar findings as earlier (Figure 1). Second dose of Inj Methotrexate 60mg IM repeated on post natal day 11. Post natal day 21 beta HCG showed 36 IU/ml. On post natal day 25, she developed severe pain abdomen and passed a 10 x 8 cms fleshy mass per vaginum (Figure 2). Following expulsion, patient became comfortable with minimal bleeding and no pain or fever on follow-up visits. Last Communication with patient revealed her to be pregnant at 8 weeks gestation.

Figure 1: Ultrasound with Doppler showing retained placental mass with low vascularity

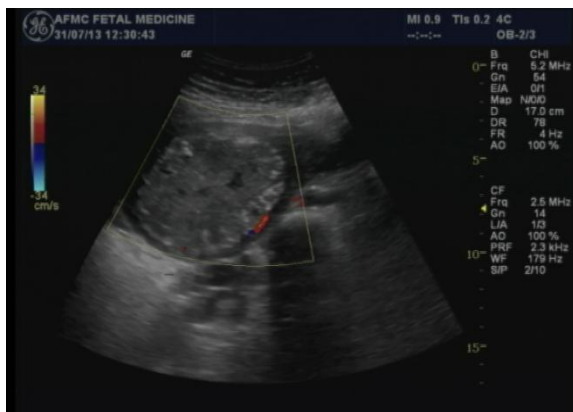
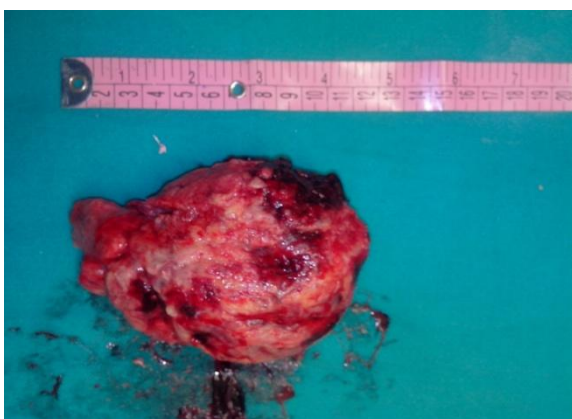


Figure 2: Expelled placental mass on post natal day 25.



3. Discussion

The incidence of abnormal placentation reported in literature varies, but averages 1:1000[2][3]. Known risk factors are previous uterine scars, including caesarean sections and prior uterine curettage[2]. Other risk factors associated with placenta accreta are multiparity (>6 pregnancies);

placenta previa; prior intrauterine infections; elevated maternal serum alpha-fetoprotein; and maternal age over 35 years[2][3]. However, our patient did not have any of such risk factors.

It is often asymptomatic antenatally and the diagnosis is only established after unsuccessful attempts to remove the placenta at delivery as happened in our patient. The most important complication of invasive placentation is massive hemorrhage. This is often a result of attempted manual placental separation from its poorly formed decidual bed, which opens up large-caliber spiral vessels and sinuses[4]. Hence, Manual removal of densely adherent placental areas should not be tried because forceful separation may result in severe bleeding [2][5].

Imaging modalities during antenatal evaluation may detect the presence of morbidly adherent placentae. Comparisons between ultrasound and Magnetic resonance imaging (MRI) have shown a sensitivity and specificity for ultrasound 77% and 96% and for MRI 88% and 100% respectively, highlighting the complementary role of the two imaging modalities[6].

The approach most often recommended in situations of significantly abnormal placentation is hysterectomy[5]. However, hysterectomy is not always safe, especially in cases of a placenta percreta. There is an increased risk of significant hemorrhage and damage to the urinary and gastrointestinal tract and necessarily leads to loss of fertility[7][8].

In a lady who desires fertility, hysterectomy should be avoided and conservative management is the choice. Where the placenta has been left in situ, there is no consensus as to whether the placenta should be removed in the postpartum period or left to resorb or to be expelled spontaneously[6].

In 1986, the use of methotrexate, a folate antagonist, was first described in association with successful conservative treatment of placenta accrete[9]. It is supposed that methotrexate affects placental tissue by reducing its vascularity, leading to placental necrosis and thus rapid involution of the placenta[9]. The placenta may be expelled after 5-13 days following intravenous methotrexate and 18 days following high-dose oral methotrexate. In cases where methotrexate was not administered, placental resorption was complete by 6 months. In bladder invasions the use of methotrexate may reduce the need for extensive bladder resection[6]. However, a study by Matsumura *et al*[10] did suggest that methotrexate may not facilitate placental degeneration after term delivery. Thus, there is

controversy as to the effectiveness of methotrexate as an adjuvant treatment. Also, there is a lack of consensus regarding optimal dosing, frequency, or route of administration. In this particular case, two doses of 1mg/kg were used, similar to the protocol used in the management of ectopic pregnancy at our centre.

It has been postulated that serum hCG levels may be useful marker in the follow-up of placental involution, if abnormally invasive placentation is treated conservatively[10]. We also monitored our patient using β hCG levels, which showed the falling trend from 5010 IU/L to 36.5 IU/L over three weeks. However despite the significant decrease in the serum β hCG levels, a large placental mass persisted, as evidenced by repeat ultrasound examinations

4. Conclusion

This case has been reported for the rarity of conservative management of placenta percreta by leaving placenta in situ and adjuvant methotrexate. Conservative approach has always risk of complications. Hence, patient selection, close observation for the development of any complications or toxicity of methotrexate is extremely important. Nonetheless, experience in the literature suggests that conservative management of placenta percreta can help women avoid hysterectomy in selected patients where fertility preservation is of concern.

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