A Case Report of a Successful Conservative Management of Placenta Increta

Nkwabong Elie1,2*, Mboudou Emile Telesphore1 and Akwa John2

1Gynecology and Obstetric Department, University Teaching Hospital Yaoundé I, Cameroon
2Gynecology and Obstetric Department, Faculty of Medicine and Biomedical Sciences, University of Yaoundé I, Cameroon

Abstract

Placenta increta is associated with increased maternal morbidity and mortality. The treatment of this condition is usually (sub) total hysterectomy, but in cases of slight or no bleeding in women who desire future childbirth, conservative treatment can be attempted. This is a case report of a woman with placenta increta without any known risk factor, whose successful conservative treatment (defined by uterine preservation) with methotrexate was achieved. We re-emphasize on the precautions that must be taken if such conservative approach is to be attempted.

Keywords: Placenta increta; Conservative treatment; Methotrexate

Introduction

Placenta increta is associated with increased maternal morbidity and mortality [1]. Fortunately, this condition is rare, even though the incidence is increasing due to increasing incidence of cesarean section [2]. When it occurs in a woman who does not want further pregnancies, a hysterectomy is always offered, but when it occurs in a young patient who desires future pregnancies, a conservative approach under close monitoring, though risky, can be attempted if there is slight or no vaginal bleeding. We present here a case of successful conservative management (defined by uterine preservation) of placenta increta. From this case, we aim at alerting any practitioner who would like to use this approach about the dangers faced and to advice them on precautions to be taken.

Case Report

A 18 year-old patient, G1P1001, single, was referred from a health centre on the 22 October 2012 for retention of placenta following the delivery at 35 weeks 2 days gestation of a female foetus. After delivery, many unsuccessful attempts at removal of the placenta were made for more than 3 hours, and then she was referred to us. Her past history was without any peculiarities. On admission, she complained of fatigue. She was hemodynamically stable. The fundal height was 23 cm. The clamped umbilical cord was pending at the vulva with a slight vaginal bleeding. The cervix was 5cm dilated. A drip with 60 units of oxytocin in 500cc glucose 5% was placed and later misoprostol 200 μg in the posterior pouch of Douglas every 6 hours (3 times), without any success.

A colour doppler ultrasound scan revealed a fundal implantation of placenta with absence of retro placental clear space, but the uterine borders were normal. Failed prior attempts at evacuating the placenta combined with the ultrasound finding led us to suspect placenta increta. The patient was admitted. Her haemoglobin level was 10.2g/dl. Her coagulation profile was normal. Two units of blood were kept. The patient and her family were counselled for an eventual abdominal hysterectomy in case of failure of conservative approach. Then, 50mg of Methotrexate (MTX) was given IM at day 1 and was repeated at days 3 and 5 followed by folic acid for 5 days; she was under broad spectrum antibiotics coverage. A slight vaginal bleeding was continuously noticed daily. One week later, she had a profuse vaginal bleeding of about 700 ml; on examination the cervix was 4cm dilated. Her new haemoglobin level was 5.8 g/dl. Three pints of blood were given and 2 new pints requested and kept. Her new haemoglobin level was 9 g/dl. She was brought to theatre and an attempt at uterine evacuation with sponge forceps was done and brought only small placental fragments. The procedure was abandoned. The placental fragments were sent to pathology. MTX and folic acid were used again with the same protocol. Histopathological examination of the placental fragments showed the presence of trophoblastic tissues within the myometrium. Four weeks after admission, the patient presented with uterine contractions and expelled an irregular placenta of 13 cm in the largest diameter, and then a gentle sharp curettage was done and brought small placental debris. There was a slight vaginal bleeding. An ultrasound scan done one day later revealed an empty uterus. Her haemoglobin level at this time was 7.9 g/dl. She was discharged with hematinics 5 weeks after admission. She was seen 2 months later with a negative plasmatic β-HCG and the physical examination revealed a normal size uterus.

Discussion

Morbidly adherent placenta describes any placental implantation with abnormally firm adherence to the uterine wall. It can be accreta, increta or percreta [3]. Placenta increta refers to placenta inserted deep in the myometrium. The pathogenesis of morbidly adherent placenta includes defects in the fibrinoid layer of Nitabuch or in the decidua basalis caused by a variety of insults like excessive curettage, infection or previous surgery [4,5]. Pathophysiology also includes excessive trophoblastic invasion [2,4]. Placenta praevia is also a risk factor [6]. In our patient, no risk factor was observed, there might have been excessive trophoblastic invasion.

The incidence of morbidly adherent placenta is rising; it moved from 1/30,000 deliveries before 1950 to around 1/2,500 deliveries today [3,7]. Some authors found a high incidence of 1.2/1000 deliveries [1].

*Corresponding author: Nkwabong Elie, Gynecology and Obstetric Department, University Teaching Hospital, Yaoundé, Cameroon, Tel: 237 96663843; Fax: 237 22312567; E-mail: enkwabong@yahoo.fr

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The increased rate of placenta increta is due to the increased cesarean section rate [2,6,8], but this case report reminds us that placenta increta can occur without any known risk factor.

There are no antenatal signs of morbidity adherent placenta. Nevertheless, antenatal diagnosis can be made through colour Doppler Ultrasonography (US) and Magnetic Resonance Imaging (MRI) [6,9,10]. US and MRI for the prenatal diagnosis of morbidity adherent placenta have sensitivities of only 78% to 85% and 66.7% to 89% respectively and are, therefore, frequently unsatisfying [11,12]. Hence, some authors proposed that they should be used in combination with clinical risk factor [11], or with clinical presentation [12]. Risk factors are not all known, and radiographic screening tools are not always accurate in the antenatal diagnosis. Consequently, some cases would be discovered late, during cesarean section or after vaginal delivery, as in our case. Colour Doppler US will show the disruption of the placental-uterine wall interface and vessels crossing these sites. Obliteration of retro placental clear space can also be noticed in 66.7% of cases. Other ultrasound imaging includes irregular shaped intra-placental lacunae (in 85% of cases), thinning of myometrium overlying the placenta and increased vascularity of the uterus adjacent to the placental insertion (in 71.4% of cases) [12]. At least two of these findings are necessary for the diagnosis of placenta increta. All these images were not noticed in our case probably because the uterine retraction that followed the delivery of the fetus might have reduced the uterine vascularity and changed the placental shape. MRI can show uterine bulging, heterogeneous placenta or placental bands. Antenatal diagnosis can be made at 20 weeks [6]. In our case, the antenatal diagnosis was not done although an US scan was done at 26 weeks.

After delivery of the foetus, the diagnosis is made following retention of the placenta. If an US scan is done, we can observe the same characteristics as that noticed before delivery, like the absence of the retro placental clear space, as in our case. If there is partial placenta increta (or percreta), one part of the placenta will be detached while the rest will still be inserted till the myometrium (or further). In this case, there will be massive vaginal bleeding, but if the entire placenta is increta, no placenta site will be detached. Hence, slight or no bleeding will be observed. This is the case with our patient.

When placenta increta is diagnosed before delivery, the patient will be prepared (and counselled) for an eventual subtotal hysterectomy (STH) in case of profuse bleeding [8,13]. If the patient is delivered by cesarean section and placenta percreta is found, hysterotomy has to be done far from the site of placenta percreta to avoid massive haemorrhage, and after a cesarean hysterectomy must be done if the patient does not desire future child birth. STH will also be performed after vaginal delivery if there is profuse bleeding or if no future child birth is desired.

Conservative management can be attempted under close supervision if there is slight bleeding either during cesarean section or after vaginal delivery, and the patient desires future child birth. In these cases, the placenta should be left in place and the cord ligated, and broad spectrum antibiotic prescribed because sepsis is common [1]. Blood (2 or 3 pints) has to be kept. Then MTX is administered. MTX has been used successfully for conservative treatment of placenta increta [3,10]. Some authors found successful rate of 78.4% among the 131 women treated conservatively [14]. Interventional radiology to prevent postpartum hemorrhage has also been successfully used. For instance, uterine artery embolisation has also been successfully done by some authors [13]. Moreover, the placement of percutaneous bilateral intra-arterial balloon catheters in both internal iliac arteries has been described as a successful technique to prevent postpartum hemorrhage and hysterectomy in patients with morbidity adherent placenta [15]. Hysteroscopic resection of retained placental tissues has also been successfully done elsewhere [16]. Close monitoring of patients treated conservatively for placenta increta should be observed since no treatment option is 100% efficacious in uterine preservation. When the placenta is left in place, after a few weeks, it can detach spontaneously.

In our case, one week after the beginning of MTX therapy, we noticed a profuse vaginal bleeding. We thought that the placenta had detached, but when an attempt at evacuation brought only small placental debris, we decided to abandon the procedure. Histopathological examination of the placental debris confirmed our diagnosis of placenta increta. A difficult attempt at evaporating the placenta shows that the placenta is not detached and should be abandoned, given that it can lead to profuse haemorrhage. The patient has to be monitored continuously until the expulsion of the placenta. This attitude was observed in our patient. In this case, blood should be cross matched and patient counselled and prepared for an eventual abdominal hysterectomy since massive vaginal bleeding can occur at any moment due to partial separation of the placenta [1,8]. This precaution was taken in our patient.

After expulsion of the placenta, a gentle sharp curettage has to be done and the patient followed until the uterus has completely involuted and beta HCG level has become negative [3,10]. This was also done in our patient. The prognosis of such patients is quite good since successful future normal pregnancies have been observed [1,14], but there is still an increased risk of uterine synchie [17], and placenta increta in these patients.

Finally, the gold standard for diagnosing placenta increta is histology of the specimen of hysterectomy, but in case of conservative treatment, the diagnosis has to be done by histology of the specimen of the placenta, as in our case.

**Conclusion**

This case report confirms that placenta increta can occur in a woman with no known risk factor. Furthermore, it re-emphasizes on the fact that in case of total placenta increta with slight or no vaginal bleeding, conservative management can be attempted with methotrexate if the mother wants future child birth. Blood has to be kept and the patient counselled and prepared for an emergency abdominal hysterectomy if there is profuse vaginal bleeding. The patient must be followed until the placenta has been completely expelled and beta HCG has become negative.

**Conflict of Interest**

The authors have no conflicts of interest to declare.

**References**


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