

Conservative Management of Morbidly-Adherent Placenta Following Vaginal Deliveries: A Case Series

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Abstract

Background: A morbidly adherent placenta can be anticipated in deliveries preceded by uterine surgeries or procedures; however a few cases occur without any apparent risk factor and require a high index of suspicion. A proper diagnosis and management can avert a catastrophe. Most cases in the literature were reported following caesarean deliveries with resultant abdominal laparotomy. A rare mention is made of morbidly adherent placenta following vaginal deliveries.

Cases: Two cases of morbidly adherent placentae in middle aged women were reported and managed conservatively. There were no apparent risk factors. Both patients had uterotonics and prophylactic antibiotics with satisfactory outcomes. The two later resumed menstruations and one had a successful pregnancy and delivery subsequently.

Conclusion: Morbidly adherent placenta can be managed conservatively in well selected cases following vaginal delivery. Simple use of uterotonic, analgesic and antibiotics can prevent a laparotomy with its attendant complications.

Introduction

Morbidly adherent placenta is an obstetric complication with potentially grave maternal outcomes [1,2]. It occurs due to placental invasion of the decidual with varying degree of severity from placenta accreta (short of the myometrium), placenta increta (limited to the myometrium) and placenta percreta (beyond the myometrium involving the serosa and occasionally other pelvic organs like the bladder and bowels). It often presents with massive post-partum haemorrhage resulting in caesarean hysterectomy [3]. The incidence has been reported to be from 1 in 2000 to 1 in 533 deliveries [4]. It has been on the increase as a result of a rise in uterine surgeries especially caesarean sections and myomectomies. There is a vast resource of cases following caesarean operations with little mention of adherent placentae following vaginal deliveries. In recent times, a more conservative approach to management is advocated with the placenta left in-situ using medical regimen and interventional radiological approach such as uterine artery embolization. These not only preserve fertility in well selected cases, it also reduces the morbidities that follow radical approach of caesarean hysterectomy.

Case One

C. O. is a booked 35 year old multipara in her third pregnancy with two previous vaginal deliveries who had her uneventful antenatal care in our hospital in 2004. She had induction of labour at 40 weeks and delivered a live male neonate, birth weight of 3.2 kg, the placenta was partially removed piecemeal under general anaesthesia after a failed attempt at controlled cord traction. There was no active bleeding and the blood loss following the procedure was estimated to be about 400 mls. A diagnosis of morbidly adherent placenta was made and she was managed conservatively on Amoxicillin-Clavulanate 625 mg twice daily for 14 days, tablets Ergometrine maleate 0.5 mg thrice daily for 10 days and was observed for the first 48 hours in the hospital. She had a continuous drainage of urine with the urethra catheter for 24 hours. At her discharge on the 3rd day post-partum, she was specifically informed to watch out for danger signs such as bleeding per vaginam, unusual tiredness or any dizziness and abdominal swelling. She was also informed she may pass a fleshy material through the vagina either piecemeal or as a whole. She passed a fleshy material on the 6th day post partum which was brought to the hospital in a container confirmed by histology as placental tissue. A pelvic scan done showed an empty uterus.

She did well subsequently and was seen at her routine 6 weeks post-natal follow up. Her menstruation resumed and four years later in 2008 she had an uneventful pregnancy, an anomaly ultrasound scan done at 20 weeks and a repeat scan at 34 weeks showed normal placentation. She subsequently had an elective caesarean section and bilateral tubal ligation at 38 weeks on request having completed her family, with easy separation and delivery of the placenta and membranes.

Case Two

O.S. is a booked 26 year old primipara who had an uneventful antenatal care in this hospital in 2013. She had two obstetrics scans done at 20 weeks and 34 weeks respectively showing a normally sited placenta and a healthy foetus. She had a vaginal delivery of a live female neonate, birth weight 2.5 kg. The placenta was difficult to deliver by the controlled cord traction method, with the cord snapping while pulling. Pre-delivery packed cell volume was 35%. Examination under anaesthesia with the uterus relaxed showed the placenta was still unseparated from the uterus. Attempt at manual removal was unsuccessful yielding small piece of the placenta tissue with much of it in-situ. There was no unusual bleeding and a decision to manage conservatively was made. Estimated blood loss was about 500 mls. She was commenced on tabs Ergometrine maleate 0.5 mg three times daily, Amoxicillin Clavulanate 1 g twice daily and her routine haematinics and discharged home about 48 hours post-partum. The packed cell volume post-procedure was 32%. A pelvic scan done on the 3rd post-partum day showed a shrinking placenta tissue at the fundus of the uterus. She expelled the placenta and membranes on the 5th post-partum day to be placental tissue while at home and brought in a container. She

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completed a week course of her antibiotics with a repeat scan showing an empty uterus. She was seen at the six weeks post-partum clinic and had a Cu T 380A inserted for contraception. Her regular menstruation resumed 4 months after the delivery. The flow and volume have been normal.

Discussion

Making a diagnosis and managing a patient with morbidly adherent placenta following a vaginal delivery can be a challenge, especially in patients with no obvious risk factor other than pregnancy. Unlike in caesarean delivery where there is a direct visual access to the uterine cavity, a high index of suspicion is needed in making such diagnosis; usually it is suspected if the placenta has not been delivered within 30 minutes of birth in women who had spontaneous vaginal deliveries. The management can equally be a dilemma as nothing may have prepared the accoucheur to the possibility of a morbid placenta adherence. An overly aggressive management approach could also do more harm than good leading to the possibility of an avoidable laparotomy.

Morbidly adherent placenta is associated with adverse maternal outcomes such as obstetric haemorrhages and maternal deaths. Often there is the need for caesarean hysterectomy and in some cases partial cystectomy if the bladder is involved [1]. The usual risk factors such as previous uterine surgeries like myomectomy and caesarean sections have been on the increase in the last few decades [4]. Hence most cases of morbidly adherent placenta recorded in the literatures are encountered at caesarean operations with very few references to vaginal deliveries.

These two patients presented had vaginal deliveries with no obvious antenatal risk factors for morbidly adherent placenta. They were managed conservatively with good outcomes. There is a recent approach to conservative managements especially in well selected cases [5]. The two patients were commenced on tablets Ergometrine maleate which kept the uterus in constant tonic contractions thereby extenuating the placenta venous sinuses and cutting out the blood supply to the placental bed enhancing cell death with subsequent atrophy of the placenta. While it acts at alpha-adrenergic, dopaminergic, and serotonin receptors (the 5-HT₂ receptor), it exerts on the uterus (and other smooth muscles) a powerful stimulant effect not clearly associated with a specific receptor type. The use of methotrexate, an antifolate, has been described as an option in the conservative management in morbidly adherent placenta. Unlike the use of methotrexate in ectopic pregnancy where there is still active cell replication, many have doubted its effectiveness in cases of morbidly adherent placenta after the baby has been delivered, with no active cell replication in the placenta [6,7]. The antibiotics cover was to prevent infection in view of the placenta being a foreign body and a good medium for bacterial proliferation and subsequent sepsis. It is important to screen for abnormal placentation early in pregnancy in patient who have had a previous uterine scar or previous abnormal placentation. This can be done with an ultrasound or a magnetic resonance imaging. Both methods have been found to be similar in terms of their predictive abilities [8-10]. Women who have placenta praevia or low lying placenta overlying a uterine scar early in pregnancy should be closely followed up with a repeat scan in the third trimester to exclude a potential placenta accreta [11]. When such a diagnosis is entertained, the patient should be counseled for a possible hysterectomy and arrangement made for her to be delivered in centres with adequate resources, including available blood and blood products in case of massive haemorrhage [12,13]. These two patients continued to do well on follow up with no excessive bleeding; both resumed normal menstruation and the first who has been followed

up for 10 years had a subsequent pregnancy with a successful elective caesarean delivery and bilateral tubal ligation on request at term; the second patient has only been followed up for 6 months. There was no need for a secondary hysterectomy in both cases. This result is similar to other published outcomes [13]. The mode of conservative measures chosen depends on the available facilities and expertise as there is no clear superior advantage of one method over another [13].

It is probable that the cases here were placenta accreta where the uterine invasions were short of the myometrium. These two cases described were managed ten years apart with similar favourable outcomes. One of the main aims of reporting these cases is to highlight the role of a simple, yet effective and affordable drug like ergometrine in management of potentially life threatening cases described.

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