

Fertility preserved following conservative management of placenta accreta: what is the correct management?

Introduction

Placenta accreta (PA) is the abnormal adherence of the placenta to the uterine wall. The increasing rates of caesarean sections in Western countries may be acting as a significant contributor to the increasing incidence of PA given its association with previous myometrial damage¹.

PA can cause massive postpartum haemorrhage or death and traditionally the treatment of choice has been hysterectomy. As the diagnosis is often made after a failed attempt at manual removal of the placenta¹, the patient is rarely prepared for this possibility. In the absence of life threatening haemorrhage, conservative management offers a chance at preservation of fertility. This paper describes one case of PA managed conservatively with subsequent successful pregnancy and considers the different strategies available for conservative management.

Case History

A healthy 37 year old primigravid booked at 13 weeks gestation and proceeded with an uneventful antenatal period. She presented at 39 weeks with a spontaneous rupture of membranes which was augmented with prostaglandin gel and syntocinon infusion. She progressed to full dilatation but required Haig-Ferguson forceps delivery for failure to progress in the 2nd stage. The placenta was retained totally in the uterus and was found to be adherent with no plane of cleavage. Estimated blood loss was approximately 2 litres, but blood loss stemmed and the conservative management option of leaving the placenta insitu was decided upon. She was commenced on prophylactic IV antibiotics and received a transfusion of 2 units of Red cell concentrate due to postnatal haemoglobin of 70g/l. She remained asymptomatic for the rest of the postnatal period. 5 months later there had been no signs of infection and an ultrasound scan revealed an empty uterus.

15 months later the woman became pregnant for the second time and proceeded with an uneventful pregnancy. Her baby was found to be presenting breech and after undergoing unsuccessful external cephalic version, was delivered by Caesarean section. The procedure was uncomplicated and the placenta separated easily. She made a good post operative recovery and was discharged three days later.

Discussion

This case adds further evidence to suggest that conservative management of PA is feasible in the absence of uncontrolled bleeding. Here, it successfully prevented the need for hysterectomy and furthermore a subsequent pregnancy was possible. In this report I will review the options for conservative management of PA and discuss the current evidence base for different practises.

The largest retrospective study² involving conservative management of PA identified 50 cases that had been treated at two French hospitals over 10 years. Primary hysterectomy was indicated in cases of life threatening haemorrhage but for a specific subgroup of patients, who fulfilled medical criteria and desired future pregnancy, a conservative approach was attempted. In this group combinations of the following treatments could be used to prevent haemorrhage: partial placental resection, uterotonic drugs, bilateral hypogastric arterial ligation or uterine artery embolisation (UAE), and postpartum intramuscular methotrexate.

Of the 50 cases of PA treated, 26 cases were managed conservatively with 24 of those requiring additional medical/surgical treatment. 21 of these cases were successfully treated whereas 5 failed and required hysterectomy. Of these 5 cases that failed, two had no surgical treatment and two failed directly as a result of complications of the embolisation procedure. Furthermore as over half of those successfully treated with conservative management also had bilateral hypogastric ligation or arterial ligation, the authors suggested that these procedures, compared to the others used, might be more reliable techniques for successful management.

The use of adjuvant methotrexate in five patients treated successfully suggests that this line of therapy is promising. Prior to this French study though, the use of methotrexate to treat PA had only been reported in isolated cases: amongst the 6 cases reported, a successful outcome was observed in 4 of them³. There is still no certainty about its effectiveness and indeed its safety and therapy should be considered experimental and used under strict supervision.

As the conservative approach attempts to preserve fertility, the potential for subsequent pregnancy is paramount to its success. In the French study, 8 women were lost to follow up but 3 subsequent pregnancies were observed with all the remaining patients having normal cycles but no wish to conceive again.

Due to the nature of the study the efficacy of one treatment could not be compared to another, however, the conservative approach as a strategy was shown to reduce the overall rate of hysterectomy from 58% to 19.3% and appeared to preserve fertility.

A review of the use of UAE as sole conservative treatment in 72 patients with PA highlights this therapy as an effective option⁴. The paper acknowledged that the

literature is dotted with disturbing reports of complications post UAE. However, they argued that for the treatment of postpartum haemorrhage, advances in techniques and expertise (particularly with regard to the material now used to embolise the arteries) a higher success rate (95% vs 77%) with fewer complications (8.7% vs 11%) was now possible⁴. Furthermore the procedure does not appear to damage the endometrium, with 12 subsequent pregnancies reported and return of menses in 83.3% of patients (true pregnancy rates not reported)

The paper went on to conclude that in ideal circumstances a strong antenatal suspicion of PA (on ultrasound or MRI) would allow the preoperative placement of ureteral stents and hypogastric catheters for balloon occlusion or embolisation in a haemodynamically stable environment. Unfortunately, the situation remains that PA is usually diagnosed postpartum when transfer to the radiology department is not suitable.

Conclusion

The urgent nature of PA means that a randomised control study into the most appropriate management options is inappropriate. This study along with two other case studies⁵ have demonstrated that pregnancy is possible following conservative management of PA when the placenta is left in situ. Furthermore, evidence accumulated from retrospective studies and reviews of case histories, suggests that in the absence of life-threatening haemorrhage conservative management with the additional use of medical/surgical techniques if required, presents itself as a valid management option in order to preserve fertility. The long term effects of such a procedure on the mother and the child, however, are yet to be examined in detail and will be crucial in accepting this management strategy into practise.

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