Conservative management of adherent retained placenta: report of 4 cases

Minakshi Rohilla*, N. Pramya, G. R. V. Prasad, Vanita Jain, Jaswinder Kalra

Department of Obstetrics and Gynecology, Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh, India

* Corresponding author: Dr. Minakshi Rohilla, Add. Prof., Department of Obstetrics and Gynecology, Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh (U.T.), 160012, India, Mobile: +91-9914209354, Fax: 0172-2747909, e-mail: minurohilla@yahoo.com

ABSTRACT

The frequency of adherent placenta is increasing due to growing number of caesarean deliveries. The optimal management of this condition remains unclear, resulting in complications in the peripartum period such as severe haemorrhage, a possible need for caesarean hysterectomy, and even severe injuries to pelvic organs. We report cases of conservative management of adherent retained placenta following midtrimester abortion, preterm normal and caesarean delivery. All were managed conservatively with antibiotics, and followed up with 2-4 weekly USG. There was complete resorption of placenta by 3-6 months postpartum in all the cases. No complications developed during the conservative management and all women resumed normal menstruation by 5-6 months post procedure. Conservative management of abnormally invasive placentation can be effective and fertility can be preserved which should be considered in highly selective cases. Further research with prospective evaluation for conservative treatments versus different approaches for adherent retained placenta is necessary.

Keywords: Retained placenta, Adherent, Conservative management, Pregnancy.

1. INTRODUCTION

Placenta accreta is one of the most feared complications in obstetrics in which entire or focal placenta is abnormally adherent to the myometrium. Morbidly adherent placenta is frequently associated with severe maternal morbidity. An increased incidence over the recent years may be secondary to the increased caesarean section rates. The most severe form is placenta percreta, in which placenta penetrates through the full thickness of the myometrium, through the serosa, and may invade adjacent pelvic organs such as the bladder. If invasion is limited to myometrial invasion, it is placenta increta. The incidence reported in literature varies but averages 1:1000 [1]. The aetiology of placenta accreta has been thought to be due to the absence of the spongiosus layer of the decidua and the histology correspondingly shows trophoblast invasion into the myometrium without intervening decidua. The common end-result is massive haemorrhage often as a result of attempted manual
placental separation from its poorly formed decidual bed which opens up large-caliber spiral vessels and sinuses.

Risk factors include uterine scarring from previous uterine curettages, caesarean sections, myomectomies, and placenta previa. A high index of suspicion is required for diagnosis, and ultrasonographic (USG) features suggestive of accreta must be sought in cases with risk factors [2]. Magnetic resonance imaging (MRI) is currently being studied as an imaging modality to better define the topography and area of placental invasion to aid planning of surgery. There has been a paradigm shift in terms of treatment, from the historical caesarean hysterectomy to more conservative methods of management involving uterine conservation and leaving the placenta in situ with adjuvant treatment of methotrexate in some cases, or simply awaiting spontaneous resorption of the placenta. The conservative management is facilitated by development of methods of controlling blood loss during surgery, such as embolisation, ligation or balloon occlusion of the arterial supplies, as well as the enhanced availability and safety of blood transfusions and good modern intensive care support.

We report cases of adherent placenta which were retained and managed expectantly without additional intervention.

2. CASE REPORTS

2.1. Case 1

A 27 years old gravida 4, previous 3 abortions was transferred to our institution 9 hours post-delivery with retained placenta and failed manual removal following preterm breech vaginal delivery at 32 weeks gestation with vaginal pack in situ. Antenatal period was apparently uncomplicated. She was haemodynamically stable, uterus was well retracted, 24 weeks gravid uterus size and there was no excessive bleeding per vaginum. Transabdominal ultrasound at admission showed a 9 x 6 cm placenta at fundus with no distinct myometrium beneath. The patient was counseled regarding the management options, their risks and benefits. In view of desire for fertility preservation the patient wanted conservative management of retained placenta. She was started on broad spectrum antibiotics and haemoglobin, leucocytes count, temperature was monitored. She remained afebrile throughout and two units packed red blood cells was transfused. On day 4 postpartum, she expelled some products spontaneously and USG showed placenta of 9 cm with minimal liquefaction in the centre at fundus. She was discharged on day 15 and followed on outpatient basis. Intermittent urinary tract infections developed and treated with appropriate antibiotics. She was followed up with 1-2 weekly USG and there was complete resorption of placenta by 3 months postpartum during which USG showed a 0.8x3.4 cm hyperechoic area in cavity suggestive of calcification. No complication developed further and she resumed normal menstruation by 5 months postpartum period.

2.2. Case 2

32 years old multiparous lady with previous 3 caesarean sections and one living newborn admitted as a partial retained placenta following preterm caesarean section one day back. She had suspected adherent placenta which was left in situ partially (5 x 6 cm on USG at fundus). There was history of postpartum haemorrhage (PPH) which was medically managed successfully. Increased risk of bleeding and possibility of hysterectomy was explained to her, she was interested in nonsurgical management. Broad spectrum antibiotics were started after written informed consent for conservative management. One fever spikes of 38°C noticed on 2nd post operative day, which was managed conservatively. There were no further episodes of fever or vaginal bleeding. At 5 months follow up only calcification around 2 x 3 cm was noticed at fundus. She resumed menstruation at 6 months postpartum.

2.3. Case 3

30 years old multiparous lady (P3013) with 3 living children admitted on day 3 postabortion as retained placenta following mid trimester abortion (3 x 3 cm mass at fundus of uterus). There was no history of post abortal haemorrhage. She was febrile on admission, for which antibiotics were continued for 2 weeks. At 3 weeks follow up, she presented...
with history of expulsion of mass per vaginum. There was no history of fever or vaginal bleeding. No placental tissue was seen inside uterus on USG.

2.4. Case 4

36 years old multiparous lady (P_{1101}) with previous caesarean section admitted with partially retained placenta following preterm delivery and early neonatal death. On USG, there was hyperchogenic area about 6 x 5 cm seen at inside uterus. Increased vascularity on Doppler USG was also noticed. B
cia decreased to 329 IU. On serial monitoring B
cia decreased to 50 IU. There was no history of fever or excessive vaginal bleeding. At 3 months follow-up placental tissue resorbed to 2 x 3 cm in size. There was no increased vascularity. At 5 months follow-up B
cia decreased to 5 IU, she resumed normal menses. She conceived spontaneously and delivered a healthy child after 1 year of last child birth.

3. DISCUSSION

Over the past 50 years, the incidence of abnormally invasive placentation has increased at least 10-fold, the risk of which is extremely low in primigravida patients, but rises significantly if associated with placenta previa or repeated cesarean section. The importance of a proper management plan in such a case is obvious. The approach most often recommended is extirpative. However, the standard management as described by Fox in 1972 of immediate Cesarean hysterectomy has devastating consequences for future fertility in such women [3]. An alternative therapeutic approach is conservative rather than extirpative which was first described by Arulkumaran et al. in 1986 where systemic methotrexate 50 mg as an intravenous infusion (total dose 250 mg) was administered on alternate days and the placental mass was expelled on day 11 postnatally [4]. Early diagnosis is important so that the patient can be adequately counselled with regard to treatment options and their possible consequences. This includes obtaining consent for caesarean hysterectomy and informing the patient of the risks of sepsis and delayed haemorrhage that may result in situations where the uterus is conserved and the placenta is left in situ.

Nowadays, the use of USG combined with color doppler provides an accurate record of the size of the placental mass, the depth of myometrial invasion, plane of cleavage and blood flow within this mass the sensitivity of which varies between 57 to 93%. Alternatively, MRI when available may provide a more accurate assessment of placentation in particular circumstances such as a posterior placenta. Histopathological evidence of placental basal plate within myometrial fibers will support the diagnosis of placenta increta, but their absence does not refute the clinical diagnosis [5].

In present series all 4 cases were managed conservatively and had spontaneous resorption of placental tissue. One women had spontaneous expulsion of placenta after mid trimester abortion at 3 weeks follow-up. Rest of three women had retained placenta following preterm delivery. All women had history of recurrent curettage or previous repeat caesarean section, as risk factor for adherent placenta.

Conservative management should only be considered in highly selected cases when patient is hemodynamically stable, and there is desire for fertility preservation. The various additional interventions reported in literature are methotrexate, arterial embolization, uterotonic agents and radiofrequency ablation. Systemic administration of methotrexate reduces placental vascularity leading to necrosis and rapid resolution although the route of administration, treatment schedule and total doses prescribed varies. The outcome when the placenta is left in place ranges from expulsion at 7 days to progressive resorption in roughly 6 months. Bilateral uterine artery embolisation has been employed with varying success. According to Descargues et al. a series of 7 women who had uterine artery embolisation carried out in emergency or prophylactic control of postpartum haemorrhage described a success rate of 72%, compared with an expected success rate of over 90% in the absence of abnormal placenta [6]. Whereas in a study by Bodner et al. prophylactic balloon occlusion and arterial embolisation before hysterectomy in patients with abnormally invasive placentation did not reduce intraoperative blood loss [7]. The interval between treatment and resolution varies from case to case, so careful follow-up of these patients is vital. The use of β-human chorionic gonadotropin, although corresponding to placental activity, may not be an
accurate predictor of treatment success or reduction in the size of the placental mass [8]. Conservative management has some disadvantages, including postpartum infection, treatment failure, and restrictive follow-up. The administration of antibiotics might be effective in preventing uterine infection, but their efficacy remains to be proven.

Kayem et al. [9] studied the impact of conservative and extirpative strategies for placenta accreta on maternal mortality and morbidity comparing two protocols of treatment, one of which was to leave the placenta in situ (20 cases), as compared to manual removal of the placenta (13 cases). It was found that there was a reduction in the hysterectomy rate from 15% to 84% in the conservative management group. However, there were 3 cases of sepsis in patients in which placenta was left in situ, compared to 1 in the other group, and at least 2 cases of women with conservative management with subsequent successful pregnancies. Similar to the present case series, Panoskaltsis and colleagues described a case with successful outcome in which no intervention was taken [10].

Over the past 20 years (1985 to 2006), around 48 case reports have described outcomes of 60 women who were treated conservatively for abnormally invasive placentation [11]. Twenty-six women were managed without any additional interventions. In 19/26, the placenta had been partially removed and therapy failed in 4 of these 26. Twenty-two women received adjuvant methotrexate. The entire placenta was left in situ in 19/22, in which therapy failed in 5. Twelve women were managed with arterial embolisation. The placenta was completely left in situ in 9/12 out of which therapy failed in 3. Overall, infection developed in 11/60, vaginal bleeding in 21/60, disseminated intravascular coagulopathy in 4/60 women. Spontaneous placental expulsion occurred in 16 women and subsequent pregnancies in 8 women. In a recent review different uterus preserving treatment options were discussed in managing invasive placentation but no conclusions could be drawn about the superiority of any modality. 90% of the total women in whom expectant management were considered, had subsequent menstruation and 67% had next pregnancy [12].

4. CONCLUSIONS

Management of placenta accreta is multidisciplinary and patients must be informed of all options. Treatment is decided according to obstetric history of the patients, operative findings and peripartum blood loss [13, 14]. Conservative management decrease blood loss during delivery and allows patients to preserve fertility. Side effects of this therapy are secondary haemorrhage, sepsis, long-term follow-up. Embolization can be a very useful adjunct, whenever massive haemorrhage occurs. There are few studies reporting fertility after conservative management, but it seems to be a safe option of planning for future pregnancies.

AUTHORS’ CONTRIBUTION

MR: Conception and design, Acquisition of data, Review and revision of the manuscript; NP: Writing of the manuscript; GRVP: Administrative and material support; VJ: Administrative and material support; JK: Administrative and material support. All authors read and approved the final manuscript.

TRANSPARENCY DECLARATION

The authors declare no conflicts of interest.

REFERENCES


