“MIFEPRISTONE: a Promising Adjunct to Conservative Management of Placenta Accreta”

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ABSTRACT

Placenta accreta is abnormal invasive placentation. Hysterectomy is often required for massive postpartum hemorrhage which may lead to significant rise in maternal morbidity and mortality. We present 2 cases of adherent retained placenta where ‘Mifepristone’ was successfully used as an adjuvant to conservative management with no post-partum complications such as infection, coagulopathy, hemorrhage or need for blood transfusion and surgery.

KEY WORDS: conservative management, placenta accreta, Mifepristone, post-partum complications, post-partum hemorrhag

INTRODUCTION

The incidence of placenta accreta aptly labelled as 20th century iatrogenic uterine disease[1] has soared to 3 per 1000 deliveries[2] paralleling the increasing trend of cesarean deliveries.

In presence of accreta, placenta fails to separate normally and attempts to remove adherent tissue can provoke bleeding and a cascade of ongoing hemorrhage and coagulopathy which calls for complex multidisciplinary management approach.

Although cesarean hysterectomy had been the treatment of choice, conservative treatment is the preferred option especially in young infertile women where at least one live issue is in question. We report the use of Mifepristone successfully in conservative management of 2 subsequent IVF pregnancies with adherent retained placenta without any morbidity.

CASE 1

A 36 year old G3A2 woman with IVF pregnancy underwent elective LSCS at 39 weeks. The placenta was found to be adherent, two-third of which was removed piecemeal, but one-third being morbidly adherent, was left in situ as there was no significant bleeding. The patient was discharged on fifth postoperative day with antibiotic cover for the following 7 days.

CASE 2

A 34 year old primigravida with IVF twin viable conception was threatening to abort from 10 weeks onwards. Cardiac activity disappeared in the first fetus which had lower uterine placentation while the other continued to grow. She had on and off bleeding from 10 weeks onwards throughout pregnancy and her hemoglobin fell from 12.7 gm% to 8 gm% for which she received oral hematinics. Ultrasonography (USG) showed a vascular 6.99x3.16 cm hetero-echoic tissue [Fig 1] suggestive of trophoblastic tissue of the non-viable fetus overlying internal os, completely separate from the normal
placenta of the second twin which was in posterior upper segment. Eventually patient was taken up for emergency LSCS for ante-partum hemorrhage at 31+5 weeks. Around 7x3 cm placental tissue of the first twin, found adherent in the lower segment of uterus, was left as such in situ. She was discharged on 7th post-operative day with antibiotic cover for another 7 days.

Both patients were treated conservatively with antibiotics and utero-tonics post-operatively. Both patients received Mifepristone 600 mg in 3 divided doses orally on second and third post-operative day after written informed consent. Follow up was done with weekly blood counts, coagulation profile and serial ultrasonography for the next 5 weeks. Fifth week post-partum ultrasound revealed a polyp of 15 cm in the first case for which hysteroscopic removal was done and an empty uterine cavity in the second patient. No blood transfusion was required in either patient.

**DISCUSSION**

Conservative management of placenta accreta by leaving the placenta or placental tissue in situ has been proposed to preserve fertility and to reduce morbidity and mortality in place of surgical intervention. Modalities like uterine artery embolization or adjuvants such as Methotrexate have been used with insufficient evidence.

Methotrexate is the most studied adjunct in conservative management for this morbid and life threatening condition. Its use can be potentially dangerous in a mature placenta with very few rapidly dividing cells. Moreover, its bone marrow depression effect is especially undesirable in these patients who already have significant risk of infection. In addition Methotrexate is to be avoided during breastfeeding as it tends to get accumulated in infant’s tissues[3]. Although use of Mifepristone has not yet been established in literature, inspired by the successful use of this drug by Morgan and Atalla[4], we used Mifepristone in our patients with successful outcome.

Mifepristone, a progesterone receptor antagonist, also has anti-glucocorticoid activity which activates uterine natural killer cell mediated cytotoxic activity in decidua[5]. This activity may help in accelerating the placental autolysis leading to rapid resorption of placental tissue. It also helps in increasing uterine contractility, cervical dilatation and has an anti-implantation effect too. Besides this, Mifepristone is devoid of potentially serious side effects of Methotrexate and can be given to nursing mothers as it accelerates lactation[6].

Mifepristone owing to its non pancytopenic side effect unlike Methotrexate precluded the use of prolonged prophylactic antibiotics. The retained placental tissue was reduced completely in the second case while in the first, the residual tissue was of mere 1.5 cm size polyp which was removed easily hysteroscopically.

**CONCLUSION**

These case reports highlight the successful use of Mifepristone for placenta accreta with placenta or its part left in-situ as a promising alternative adjuvant therapy in conservative management of placenta accreta.
Fig 1: Ultrasound image showing 6.99*3.16 cm placental tissue of the first twin in the lower segment which was adherent and left in situ; managed successfully with mifepristone in the post-partum period.

REFERENCES