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Case Report

Scar Pregnancy, a Management Dilemma: A Case Report of Successful Management

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Abstract

Background: In the dilemma of management of scar pregnancy and absence of clear guidelines for the management, patient selection for each management option would rely on the clinical scenario, medical condition and patient requirement.

Introduction: The incidence of scar pregnancy is very rare between 1 in 800 - 2500 women who have had caesarean delivery. Several types of management were used for treatment of scar pregnancy, but yet, no management protocol has been accepted for this rare, life threatening condition. Dilatation and curettage was a successful treatment for caesarean scar pregnancy in 62% of cases, but 7% of patient required hysterectomy. Current trends in treatment are mostly conservative with the objective of minimizing morbidity and preserving fertility.

Case Report: Twenty-seven years old pregnant lady in her third pregnancy, with a history of previous caesarean section at nine weeks gestational age, complaining of minimal vaginal spotting. Her Beta HCG was 162000 IU and scan showed picture suggesting missed miscarriage of a scar pregnancy. She declined surgical management or Methotrexate treatment and eventually received Misoprostol 400 micrograms vaginally, every 4 hours, for a total of 3 doses; aiming to reduce the trophoblastic activity, and to have a non-surgical expulsion of products of conception. Beta HCG showed significant reduction over the next few weeks and as well, scans showed reducing vascularity. While on expectant management, 3 months later she presents with sever vaginal bleeding which necessitate surgical evacuation which was done without complications.

Conclusion: Management of scar pregnancy is a dilemma which requires very careful diagnosis and assessment of patient's condition. Conservative management using medical treatment in the form of Methotrexate or Misoprostol or both is an effective treatment which requires close monitoring and follow up of patient's condition, serial Beta HCG testing and ultrasounds assessment for the trophoblastic activity and vascularity, besides good compliance and patient's commitment. The aim is to give time for reduction of trophoblastic activity and either expulsion of products spontaneously or as in this case, the patient presented with heavy bleeding which required an emergency evacuation of products of conception.

From our experience, there is a place for medical management using Misoprostol therapy combined with or without surgical evacuation of products of conception in the management of scar pregnancy.

Keywords: *Caesarean Scar Pregnancy; Dilemma; HCG*

Introduction

Caesarean scar pregnancy is a variant of ectopic pregnancy in which implantation of the embryo is on the myometrium of the previous caesarean scar. The incidence of scar pregnancy is 1 in 800 - 2500 women who have had caesarean delivery [1]. Several lines of management have been described in the literature for treatment of scar pregnancy, but none has yet been universally accepted for this rare, life threatening condition [2]. A systemic review published in 2016 reported that dilatation and curettage was a successful treatment for caesarean scar pregnancy in 62% of cases, but 7% of patient required hysterectomy [3]. Therefore, the authors recommended avoiding dilatation and curettage as a first line approach of management. Treatment with methotrexate (a folinic acid antagonist that interferes with DNA synthesis in the rapidly proliferating trophoblast) for ectopic pregnancy was introduced because of its success as an antimetabolite drug for the treatment of cancers [4]. Current trends in treatment are mostly conservative with the objective of minimizing morbidity and preserving fertility. A meta-analysis published in 2018 reported that expectant management may be a reasonable option for caesarean scar pregnancy without fetal cardiac activity, although in almost 30% of these cases, prompt treatment was required [5].

Case Report

A 27 year old housewife, G5P3 with a history of previous caesarean section presented at 9 weeks' gestation complaining of on and off minimal vaginal spotting. Her serum Beta HCG was 162,000 IU, and her initial scan showed a low implanted gestational sac with non-viable fetus, prominent vascularity along the anterior aspect with lacunae and thinning of anterior myometrium. The picture was highly suggestive of missed miscarriage of a scar pregnancy.

The patient was admitted to for observation and further evaluation by magnetic resonance imaging (MRI), which suggested the same provisional diagnosis.

Patient had counseling regarding medical management, Methotrexate option had been offered to the patient but she declined and was in favour of using Misoprostol. So the other option, Misoprostol 400 micrograms vaginally, every 4 hours had been used for a total of 3 doses with the aim to reduce the trophoblastic activity and the possibility to have a non surgical expulsion of products of conception. Beta HCG levels were followed up and showed significant reduction over the following weeks. Scans were performed repeatedly during the same period, but still the gestational sac was there, with reducing vascularity each time.

Over the following 8 weeks the patients presented to emergency department several times with minimal vaginal bleeding and was admitted for observation each time and counselled about surgical intervention. She preferred to continue with expectant management.

Over the time, patient was emotionally depressed and getting worried, but still insisting for expectant management.

Around 3 months later, she presented to emergency department with severe vaginal bleeding. She was resuscitated and prepared for surgical evacuation. Her Beta HCG was less than 1 and scan showed the same sac surrounded by large hematoma. She lost around 1.5 litres of blood, so massive transfusion protocol was activated, and she received blood transfusion.

The initial plan was for laparoscopic guided suction evacuation, but due to patient instability and the availability of well experienced radiologists, she underwent a suction evacuation under ultrasound guidance. Towards the end of procedure, still small remnants were attached to the caesarean scar, but haemostasis was secured, and her condition was stable.

She was then discharged home and followed up in the outpatient department. She started having her periods 3 weeks later, which were normal and regular. After 8 weeks a follow-up scan showed an empty uterus with no remnants within.

Discussion

Although management of this patient took a long time, it is likely that successful surgical option might have offered a shorter course for cure. On the other hand, from our experience, conservative management was found to take a longer and safer course. Importantly, it complied with the patient's wishes, which is an important factor to take into consideration when planning any treatment. In some cultures (like the Middle East) some women are willing to try conservative management for an extended period of time for fear of the possibility of losing their uterus due to surgical intervention.

Conclusion

Management of scar pregnancy is a dilemma which requires very careful diagnosis and assessment of patient's condition. Conservative management using medical treatment in the form of Methotrexate or Misoprostol or both is an effective treatment which requires close monitoring and follow up of patient's condition, serial Beta HCG testing and ultrasounds assessment for the trophoblastic activity and vascularity, besides good compliance and patient's commitment. The aim is to give time for reduction of trophoblastic activity and either expulsion of products spontaneously or as in this case, the patient presented with heavy bleeding which required an emergency evacuation of products of conception.

From our experience, there is a place for medical management using Misoprostol therapy combined with or without surgical evacuation of products of conception in the management of scar pregnancy.

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