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CASE REPORT

Successful Treatment of a Repeat Caesarean Scar Ectopic Pregnancy with Transvaginal Intraamniotic Instillation of Methotrexate

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Introduction

Caesarean scar pregnancy is the rarest of all forms of ectopic pregnancy and an important diagnosis to be considered in patients with history of prior caesarean section.

Case History

A 35-year-old, G4P2L1E1, presented with lower abdominal pain, intermittent spotting, GA—5 weeks and 1 day and a positive pregnancy test. Her obstetric history was significant for previous two CS and the third caesarean scar ectopic treated by scar excision and repair by laparotomy.

USG revealed empty uterine cavity, a 20-mm GS with yolk sac, in the anterior lower uterine segment which was confirmed by MRI (Fig. 1). The initial serum beta HCG value was 30,000 mIU/ml. Since her vital parameters were stable, treatment with multiple dose systemic methotrexate (1 mg/kg) was planned. Patient was thoroughly counselled regarding the risk of heavy bleeding, blood transfusion and emergency surgery if required. After receiving two doses, at day 4 repeat Beta HCG showed doubling, and hence 50 mg methotrexate was instilled in the amniotic sac under ultrasound guidance (Fig. 2).

On follow up, Beta HCG regression curve showed a steady fall and took 8 weeks to become negative (Fig. 3). She resumed her normal cycles 6 weeks after the local methotrexate injection. The implantation site persisted as echogenic mass of 2.1 × 1.8 cm and was evaluated by ultrasound at monthly intervals. The resolution of the mass was slow. Six months after the treatment, patient is asymptomatic with complete disappearance of the blood clot at the implantation site.

Discussion

Caesarean scar pregnancy is a rare clinical entity, and a repeat scar ectopic is still rarer. It is a life-threatening condition due to its potential to cause uterine scar rupture and catastrophic haemorrhage early in gestation and demands prompt recognition. There are no current management guidelines for the given condition due to its low incidence. Early diagnosis is the key factor to avoid complications and to allow conservative management.

Diagnosis is usually made by transvaginal ultrasound. The ultrasonographic criteria defined to diagnose the condition include (a) an empty uterine cavity and cervical canal, (b) a gestational sac in the anterior part of uterine isthmus and (c) the absence of healthy myometrium between the bladder and the gestational sac [1].

Treatment essentially is aimed at elimination of the gestational sac and preserving the fertility. If the diagnosis

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Fig. 1 MRI image showing 2 cm cesarean scar pregnancy. Normal myometrium between the sac and the bladder is almost absent

Fig. 2 Needle tip placed in the gestational sac under transvaginal ultrasound guidance (seen as hyperechoic point) and 50 mg methotrexate instilled after aspirating amniotic fluid

is delayed, gestational sac is large and there are obvious signs of rupture, then immediate surgical exploration is mandatory. Surgical management has the additional advantage of repair of the scar along with resection of the pregnancy. Successful management with minimally invasive techniques has also been reported [2]. Curettage should not be considered as the primary procedure because of the risk of brisk haemorrhage, scar rupture and inability to reach the implantation site.

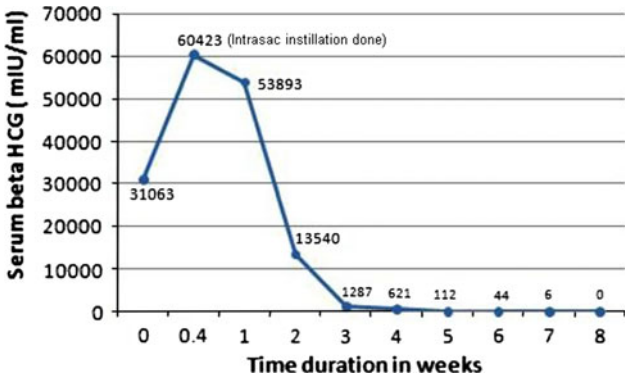

Fig. 3 Post treatment beta HCG regression curve. The HCG levels took 8 weeks to become negative

Medical management mainly consists of methotrexate administration, either systemically or locally, or in combination. The guidelines, indications, contraindications and follow-up of medically managed ectopic pregnancies apply to the caesarean scar ectopic as well. Local methotrexate injection seems to be more effective as systemically administered methotrexate fails to reach the target tissue in effective concentration [3]. Selective uterine artery embolization can be combined with conservative management as it entails the risk of massive haemorrhage [4].

Patients undergoing conservative management should be kept on close clinical follow up and should be counselled regarding the need of secondary treatment options if the primary therapy fails.

Conclusion

In summary, with early and accurate diagnosis, conservative management of caesarean scar pregnancies is feasible and should be the preferred choice in young women.

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