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Case Report

A rare presentation of caesarean scar pregnancy: a case report

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ABSTRACT

Caesarean scar pregnancy (CSP) or retained products of conception is a rare but life-threatening complication. It is an abnormal implantation of the gestational sac or retained products of conception into the myometrium and a fibrous scar after a previous caesarean section. The incidence of such cases is on the rise due to the increase in caesarean sections worldwide. A 37-year-old $P_2L_2A_1$ (two previous caesarean sections and one spontaneous abortion followed by dilation and curettage) presented with complaints of vaginal bleeding and lower abdominal pain. She was diagnosed as a case of CSP with retained products of conception by ultrasonography and confirmation of the diagnosis was done by magnetic resonance imaging. An exploratory laparotomy was performed and the patient was successfully managed. Treatment must be individualized depending on the patient's hemodynamic profile, size, extent, depth, and vascularity, caesarean pregnancy, future fertility wishes, and compliance for follow-up.

Keywords: CSP, Surgical management, Ectopic, Previous caesarean

INTRODUCTION

A caesarean scar pregnancy (CSP) is defined as the implantation of a gestational sac into the myometrium of a previous caesarean scar. Its incidence is approximately 1 in 2,000 cases with an increased number of caesarean sections.[1-3] Generally, symptomatic patients present early with vaginal bleeding and pain in the lower abdomen. In pregnancy with a caesarean scar, implantation is found in two patterns, namely exogenous and endogenous.[1] Of these two types, exogenous CSP undergo hysterectomy mostly with the spectrum of placenta accreta at delivery.[1] We reported a case of retained products of conception at the site of a caesarean section scar, which was successfully treated by surgical method with special attention to preserve patient's fertility.

CASE REPORT

A 37-year-old $P_2L_2A_1$ (two previous caesarean sections and one spontaneous abortion) presented to the OB/GYN emergency department with complaints of bleeding per vaginum and lower abdominal pain for the past four months. She had history of spontaneous abortion followed by dilation and curettage. During general examination, the patient was hemodynamically stable. On abdominal examination, abdomen was soft but tender on palpation. On per speculum examination cervical os was closed and no active bleeding was observed. On per vaginal examination, uterus was normal in size, retroverted, cervical os was closed, and the bilateral fornices were free. There was no cervical motion tenderness.

Transvaginal ultrasound scan revealed a large heterogenous area which was avascular on Doppler study and fixed at the lower uterine segment and retro-vesicular fold at the previous scar site measuring 78×56 mm suggestive of retained products of conception at the previous caesarean scar. An MRI was performed, which confirmed the ultrasound findings, and a diagnosis of retained products of conception at the site of the previous caesarean scar was made. After proper consent and consultation, we prepared the patient for an exploratory laparotomy.

Intraoperative findings

Urinary bladder was densely adherent to whole of lower uterine segment of the uterus, extending until lower part of upper uterine segment which was camouflaging the scar ectopic gestation site. An immobile, fixed globular bulge of 5×4×2 cm was visible beneath adherent bladder, which on palpation was firm to hard in consistency (Figure 1).

Figure 1: Intraoperative image showing the globular bulge suggestive of caesarean scar pregnancy.

On sharply dissecting the bladder downwards, the globular bulge which bled on touch, consisting of products of conception along with blood clots present perforating the anterior uterine wall along the previous caesarean scar site. By further dissection, the whole of the scarred area of the lower uterine segment along with the retained products of conception was snipped off with scissors. Check curettage of the whole of the uterus was done revealing no retained products of conception inside the uterine cavity.

Uterus was stitched and complete hemostasis was achieved (Figure 2). Surgery and the postoperative period were uneventful and patient's fertility was preserved. HPE report revealed retained products of conception.

Figure 2: Intraoperative image showing perforated tissue of scar ectopic gestation after adequate bladder resection.

DISCUSSION

CSP is a rare and complicated condition that must be managed by properly tailoring the treatment protocol according to the patient's clinical condition and future fertility requirements. The first ever case of CSP was reported by Larsen and Solomon in 1978.[4] Due to the increase in the number of caesarean sections, the incidence of caesarean pregnancies is also on the rise. The existence of this condition can be explained by several etiological factors, out of which the most likely mechanism is invasion of the myometrium by a microscopic tract, which is thought to develop as a result of previous uterine traumas such as dilatation and curettage, caesarean sections and myomectomy.[5-7]

Transvaginal sonography with doppler study is an excellent first-line investigation with a sensitivity of 84.6% for the diagnosis of CSP.[8] In our case, there was an empty uterine cavity and cervical canal with development of gestational sac in the anterior wall of the isthumus showing evidence of functional trophoblastic circulation on Doppler study and absence of healthy myometrium between the sac and the bladder. Soon after the diagnosis of CSP, the patient was advised termination of pregnancy to avoid catastrophic complications in the near future like uterine rupture and heavy bleeding.

According to the literatures, the proposed management options are: Uterine isthmic resection by laparotomy or laparoscopically, transvaginal isthmic resection through anterior colpotomy, uterine artery embolization followed by D and C with or without hysteroscopy, hysteroscopic resection and in rare instances, hysterectomy.[9,10]

Medical management is also suggested in literature by using mifepristone and methotrexate (local injection into gestational sac and systemic injection). Srinivas et al used the combination of mifepristone and systemic methotrexate.[11] Shu et al treated CSP by curettage and aspiration guided by laparoscopy after systemic injection methotrexate and mifepristone.[12] Kim et al treated a case of CSP by transvaginal ultrasound guided injection of methotrexate after aspiration of sac contents.[13] Zhuang et al performed bilateral uterine artery chemoembolization with methotrexate for CSP.[14] However, the risk of postoperative fever and longer hospitalization is there and close postoperative monitoring is needed in such cases. Surgical management has the advantage of immediate remission. Huanxiao et al reported 40 cases of CSP, which were managed by transvaginal hysterotomy.[15]

After conservative treatment of CSP, subsequent pregnancies have good outcomes with associated placenta accreta syndromes and recurrent risks of CSP. Uterine arteriovenous malformations are a potential long-term complication of these cases. In our patient, the clinical examination and the radiological investigations pointed towards the provisional diagnosis of CSP. During exploratory laparotomy, uterine isthmic resection was

done, the raw isthmic edges of the uterus stitched together and achieved complete hemostasis. Fortunately, our patient's fertility was preserved as she was desirous of future pregnancies.

CONCLUSION

Treatment must be individualized depending on the patient's hemodynamic profile, size, extent, depth, and vascularity, caesarean pregnancy, future fertility needs, and compliance for follow-up.

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