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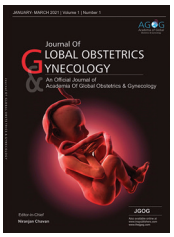
Case Report



Where Old Wounds Harbor New Life: Cesarean Scar Ectopic – A Clinical Dilemma

Maheshwari

Asscociate Consultant, Jindal Sanjeevani Super Speciality Hospital, Toranagallu, Bellary, India

ABSTRACT

Cesarean scar pregnancy (CSP) is a rare and potentially life-threatening form of ectopic pregnancy in which the gestational sac implants within the myometrial defect at the site of a previous cesarean section scar. It can result in catastrophic complications such as uterine rupture, severe hemorrhage, and placenta accreta spectrum if not diagnosed and managed promptly. We report a case of a 25-year-old female, gravida 3, para 2, living 2, with a history of two prior cesarean deliveries, who presented at 12 weeks of gestation with abdominal pain and spotting per vaginum. Transvaginal sonography revealed a gestational sac implanted at the anterior lower uterine segment scar with thinned myometrium and increased vascularity, suggestive of a cesarean scar ectopic pregnancy. An exploratory laparotomy was performed, followed by bilateral uterine artery ligation, excision of the scar pregnancy, and uterine repair. The post-operative course was uneventful. CSP is an iatrogenic but increasingly recognized entity due to rising cesarean rates. Early diagnosis through imaging and timely surgical intervention are essential to prevent severe maternal morbidity. Increased awareness, standard management protocols, and future fertility counseling are critical in improving outcomes.

Key words: Cesarean scar pregnancy, Ectopic pregnancy, Laparotomy, Placenta accreta spectrum, Uterine artery ligation, Uterine rupture

INTRODUCTION

Cesarean scar pregnancy (CSP) is an abnormal implantation of the gestational sac in the area of the prior cesarean delivery scar, potentially leading to life-threatening complications such as severe hemorrhage, uterine rupture, and development of placenta accreta spectrum disorders. The incidence is 1:1800–1:2000 pregnancies after cesarean birth.

CASE REPORT

A 25-year-old female, married for 5 years, gravida 3, para 2, living 2, with 3 months of amenorrhea, presented to the gynecology department with pain in the abdomen for 3 days, spotting per vaginum for 3 days.

Correspondent Author:
Dr Maheshwari, Asscociate Consultant, Jindal Sanjeevani Super Speciality Hospital, Toranagallu, Bellary, India.
E-mail: Maheshwarisedamkar7@ gmail.com

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In her obstetric history, she was g3p2l2 with previous two cesarean deliveries; her first cesarean was due to fetal distress, and her second one was due to impending scar dehiscence

o/e: Patient is conscious, alert, pulse rate: 120/m, blood pressure: 130/86 mmHg, uterus: 10–12 weeks, scar of previous lower segment cesarean section was present, mild tenderness noted at the scar site, on per speculum examination, cervix was normal, on per vaginal examination: OS closed, beta human chorionic gonadotropin (b-HCG) level; 18,000 and after 48 h b-HCG value was 20,000 IU/L, which showed less than doubling

Usg pelvis: e/o thickened cystic endometrium in the uterine cavity with well-defined regular gestational sac seen in the lower endometrial cavity with choriodecidual reaction around the sac seen at the anterior uterine scar site, there is thinning of anterior myometrium up to 2.3 mm with increased myometrial vascularity with gestational age of 12 weeks s/o scar pregnancy.

Management

An exploratory laparotomy was done – a soft and vascular mass was seen at the site of the previous scar. Diluted vasopressin injection was injected into the myometrium just above the sac, and bilateral uterine artery ligation was done. An incision was made over the

bulge, and products of conception were gently removed. It was communicating with the uterine cavity, where the edges of scar tissue were excised and freshened, and gentle uterine curettage was done. Tissue was sent for hpt and closed with vicryl no. 1 in a continuous interlocking manner, and the abdomen was closed in layers, and a diagnosis of cesarean scar ectopic was made [Figures 1-5].

DISCUSSION

Cesarean scar ectopic pregnancy (CSEP) is a rare but potentially life-threatening form of ectopic gestation, where the fertilized ovum implants within the myometrial defect at the site of a previous cesarean section scar. Its incidence has increased in recent years, parallel to the rising global cesarean section rates, and is estimated to occur in approximately 1 in 1800 to 1 in 2500 pregnancies.[1,2] CSEP is classified as a form of morbidly adherent placenta spectrum and is considered a precursor to placenta accreta if the pregnancy progresses.[3] Early diagnosis is vital, as delayed recognition can lead to uterine rupture, massive hemorrhage, hysterectomy, or maternal death.[4]

The pathophysiology involves implantation of the gestational sac in a microscopic tract formed during imperfect healing of the lower uterine segment scar. Risk factors include multiple cesarean deliveries, short interpregnancy interval, and uterine surgeries such as myomectomy or curettage.[5,6]

Transvaginal ultrasonography with Doppler is the primary diagnostic modality. Hallmark sonographic features include an empty uterine cavity and cervical canal, a gestational sac embedded at the level of the scar, thin or absent myometrium between the bladder and sac, and increased peritrophoblastic flow on Doppler.[7] Magnetic resonance imaging may be used in complex cases to assess myometrial integrity or bladder involvement.[8]

Management options depend on gestational age, clinical stability, and patient fertility preferences. Medical management using systemic or local methotrexate is effective in early, unruptured cases.[9] Surgical options include dilatation and curettage with or without laparoscopic or hysteroscopic guidance, wedge resection,

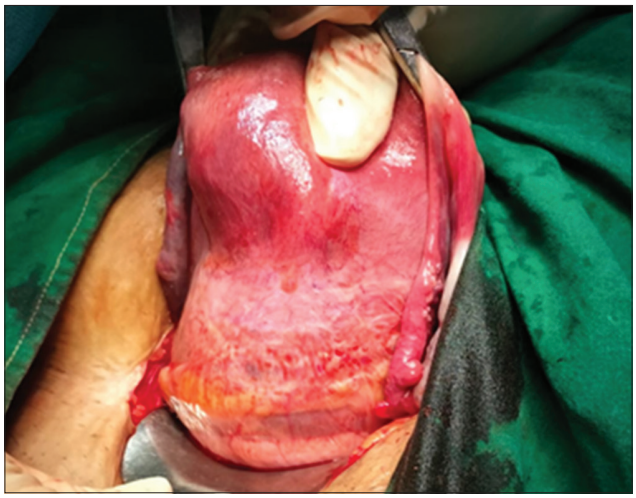

Figure 1: Bilateral uterine artery ligation

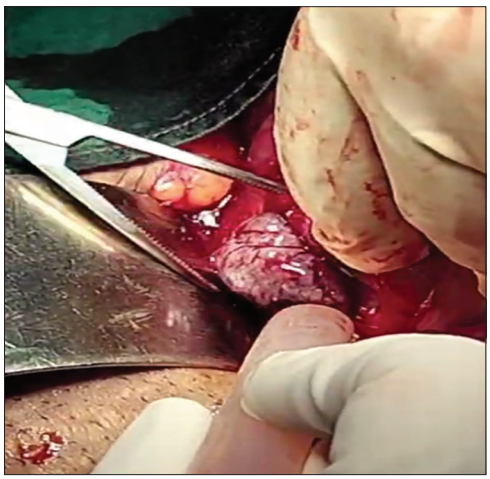

Figure 3: Excision of scar tissue

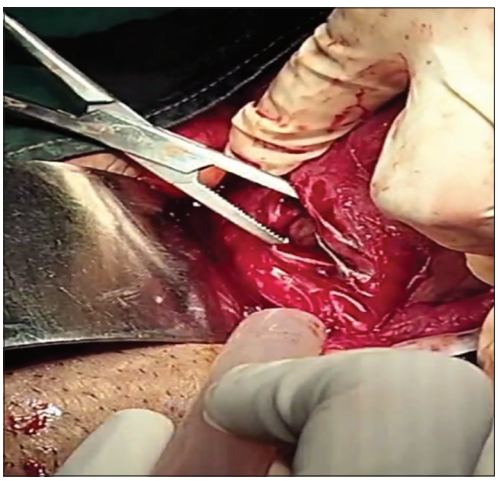

Figure 2: Incision over bulge

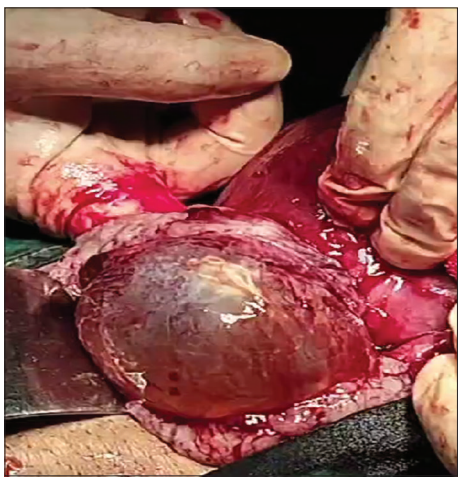

Figure 4: Gestation sac

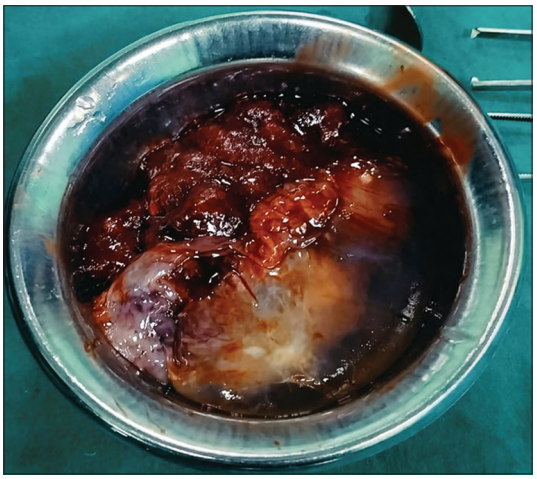

Figure 5: Excised tissue

or hysterectomy in uncontrolled bleeding or completed families.[10] Uterine artery embolization can serve as an adjunctive therapy to control hemorrhage.[11]

Awareness and standardized protocols are essential for prompt diagnosis and individualized care. Future pregnancies after CSEP warrant close surveillance, given the risk of recurrence and morbidly adherent placenta.[12]

CONCLUSION

It is rare and carries a significant risk of OG severe, potentially life-threatening maternal morbidity; it is an iatrogenic condition. Early detection is the key and requires a high index of suspicion; treatment of CSP is challenging. The recommendation is to offer early termination of pregnancy to avoid the potential risks of continuing pregnancy. There is an urgent need for further research on possible prognostic factors and ways to conserve fertility during delivery.

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