

SUCCESSFUL LAPAROSCOPIC MANAGEMENT OF A CESAREAN SCAR ECTOPIC PREGNANCY

Background

Cesarean Scar Pregnancy (CSP): one of the rarest forms of ectopic pregnancy: egg implants in previous c-section scar

Probable etiologies:

- Microscopic dehiscence in scar from surgical trauma¹
- Multiple C-sections: increased fibrosis and reduced vascularization of the scar area → incomplete repair

Transvaginal ultrasound (TVUS) used to diagnose CSP:

- Gestational sac between bladder and anterior uterine isthmus part
- Empty uterine cavity and cervical canal
- Visible blood circulation around sac on color Doppler²

Early diagnosis needed for optimal management outcomes

- Prevention of uterine rupture and massive hemorrhage
- Preservation of future fertility

No universal guidelines for optimal management of CSP.



Case

32 year-old G3P2A0 9 weeks gestation
Presented with 3 days of painless vaginal bleeding

Past obstetric history: 2 previous c-sections (7 years ago)

Physical exam: unremarkable

Labs: βhCG was **6187mIU/ml**

TVUS: C-section scar occupied by a gestational sac with well identified 1.9 cm embryo. No cardiac movements. Residual anterior uterine wall thickness around the sac was 5.6mm

→ **CSP arrested 8.5weeks of gestation**

Management:

- **Methotrexate 75mg IM** administered on a weekly basis
 - βHCG dropped from 6187 to **195 mIU/ml** in 20 days
- Presented with heavy bleeding and abdominal pain
- Ectopic mass not completely resolved on follow up US
- Admitted for **hysteroscopy-laparoscopy**.
- **Hysteroscopy:** partial resection of tissues adherent to anterior wall of the uterus at the level of the c-section scar. The rest of the endometrial cavity looked normal.
- **Laparoscopy:** bluish bulge present at the vesicouterine peritoneum. The bladder was dissected from the lower uterine segment. The bulging mass was opened and products of conception were completely removed. Uterine defect was closed in two layers using a zero vicryl suture.

Pathology report of resected tissues confirmed diagnosis.

Post-operative course uneventful.

βhCG level back to normal 4 weeks post-op

No abnormal uterine bleeding was noted since.



Discussion

Many conservative management protocols suggested:

→ *Dilation and curettage (D&C), local or systemic Methotrexate (MTX), uterine artery embolisation (UAE), laparoscopic excision of the trophoblastic tissue³*

MTX treatment is considered appropriate in:

- Hemodynamically stable patients, β-hCG <10000 mIU/mL
- <7weeks gestation, ectopic mass diameter < 25mm
- Absence of cardiac activity⁴

Some reviews advised surgical intervention when medical treatment fails to completely resolve the CSP mass

- Uterine scar excision and repair
- Better wound healing, decreased risk of dehiscence^{4,5}

We opted for **operative laparoscopy-hysteroscopy** to excise the remaining mass in anterior aspect of uterine isthmus and repair the scar defect.

Uterine wound repair before subsequent pregnancy was not always effective in preventing a CSP or uterine rupture
→ Next pregnancy not recommended before 1 to 2 yrs⁶

Summary

No optimal management guidelines yet, choice depends on:

- Hemodynamic stability of the patient and gestational age
- Size of the mass and βhCG level
- Physician's expertise and hospital facilities

MTX highly recommended, but drop in βhCG slower than surgical treatment and doesn't always completely resolve the ectopic mass even after βhCG levels go down to normal¹.

Choosing laparoscopic management over laparotomy;
→ fewer post-op adhesions & better preservation of fertility

❖ Given all advantages of laparoscopic surgery over laparotomy: when surgical treatment is indicated, **laparoscopic resection of ectopic mass and wound repair** proved to be effective for CSP management, provided that the facilities and surgical skills are present⁴.

❖ Decreasing rate of unindicated c-sections and improving uterine suturing techniques play an important role in decreasing the incidence of CSP¹.

References

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