



SCAR ECTOPIC PREGNANCY: A RARE BUT POTENTIALLY CATASTROPHIC IMPLANTATION

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ABSTRACT

Introduction: Scar ectopic pregnancy is rarest of all ectopic pregnancies with incidence of 1 in 1800 to 2500 pregnancies in India. It is life-threatening form of abnormal implantation of embryo within the myometrium and fibrous tissue of previous scar following caesarean section; hysterotomy; dilation and curettage; abnormal placentation, myomectomy and hysteroscopy. First case of a scar ectopic pregnancy was reported in 1978. **Case Report:** A 39-year-old female (G4P3L3) with three prior cesarean presented with amenorrhea, pelvic pain, and spotting. Clinical examination and transvaginal ultrasound confirmed a 7-week ectopic pregnancy implanted within the previous cesarean scar. Laparotomy was done and the removal of the gestational sac was done. The products of conception were confirmed via histopathology. **Conclusion:** To decrease morbidity and mortality and maintain fertility, it is critical to obtain an early and accurate diagnosis of caesarean scar ectopic pregnancy.

KEYWORDS : Caesarean; Scar; Ectopic; Pregnancy; Implantation

INTRODUCTION

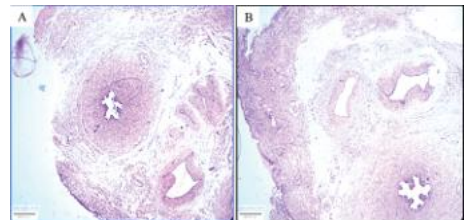
Cesarean scar ectopic pregnancy (CSEP) is a rare but life-threatening condition where an embryo implants within the fibrous tissue of a previous uterine scar. Once a medical rarity, its incidence is rising alongside the global increase in Cesarean deliveries. This "iatrogenic" complication occurs when a blastocyst enters the myometrium through a microscopic tract, risking catastrophic outcomes like uterine rupture and massive hemorrhage. Symptoms are often non-specific ranging from painless vaginal bleeding to being entirely asymptomatic—early diagnosis by transvaginal ultrasound or MRI is critical. Prompt identification is the only way to prevent maternal mortality and preserve future fertility. As a high-risk obstetric challenge, CSEP requires vigilant screening in patients with a history of uterine surgery to ensure safe, conservative management.

Case Report

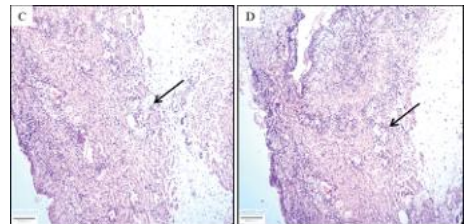
A 39 year old female, G4P3L3 with previous three caesarean deliveries presented with the complaint of amenorrhoea since 20 days and pain over suture site & spotting since 1 day. On per speculum, cervix showed bleeding per vaginum. Transvaginal ultrasound revealed a single intrauterine sac in endometrial cavity at the level of caesarean scar with myometrial lining giving an impression of scar ectopic gestation with anticipated gestational age of 7 weeks. Laparotomy was done; incision given over previous scar and entered into abdominal cavity. Adhesions were removed between rectus muscle and sheath and anterior wall of the uterus and anterior abdominal wall. Bladder adhered to previous scar; separated by sharp dissection. Three containers were sent for histopathological examination labelled as fallopian tubes & caesarean scar product of conception.

Sections examined from caesarean scar showed chorionic villi, trophoblastic tissue embedded in fibrocollagenous tissue

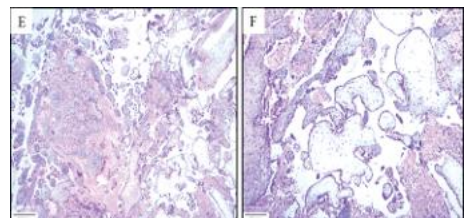
and muscularis layer along with decidualised tissue, fibrinoid necrosis, consistent with caesarean scar ectopic pregnancy.



Photomicrograph A,B: Sections examined show right and left fallopian tube with patent lumen and congestion (H & E, 40x)



Photomicrograph C,D: Sections examined show chorionic villi embedded in fibrocollagenous tissue and muscularis layer. (H & E, 40x)



Photomicrograph E,F: Sections examined show Chorionic villi, decidualized stroma, trophoblastic tissue and hemorrhage. (E: H & E, 40x; F: H & E, 100x)

DISCUSSION

Cesarean scar ectopic pregnancy (CSEP), once a medical rarity, has become a significant obstetric challenge due to the global rise in Cesarean deliveries. Understanding this condition requires a look at how it develops, how we find it, and the life-saving ways it is managed today.

Unlike a typical pregnancy that grows inside the uterine cavity, a CSEP occurs when an embryo implants specifically into the fibrous tissue and muscle of a previous surgical scar. It is essentially an "iatrogenic" complication, meaning it results from prior medical interventions like C-sections, myomectomies, or even dilation and curettage (D&C).

There are two main types based on how they grow; Type I: The pregnancy grows toward the uterine cavity. Type II: The pregnancy grows deep into the scar, potentially leading to uterine rupture and catastrophic bleeding. CSEP is notoriously difficult to diagnose because its symptoms—if they appear at all—are often non-specific. Many women experience only painless vaginal bleeding or mild abdominal discomfort, while nearly 37-45% of patients show no symptoms at all.

Scar ectopic mimic miscarriage or a cervical pregnancy, specialized imaging is vital. Transvaginal sonography is the first line of defense, often showing an empty uterine cavity with a gestational sac embedded in the anterior lower uterine segment. In more complex cases, MRI provides a "panoramic view" to help surgeons plan their approach. The goal is always to stop heavy bleeding and, whenever possible, protect the woman's ability to have children in the future.

Medical Treatment: If caught very early (usually under 8 weeks), medications like methotrexate can be used to stop the pregnancy's growth. **Surgical Intervention;** for patients at high risk of rupture, surgery is often the safest path. This might involve removing the pregnancy through laparotomy or laparoscopy and then repairing the uterine scar. Procedures like Uterine Artery Embolization (UAE) can be used to cut off the blood supply to the ectopic mass, preventing severe hemorrhage.

CONCLUSION

Physicians should keep a higher index of suspicion in pregnant women with previous caesarean section and presents with complain of pain over suture site. The complications include uterine rupture, life-threatening haemorrhage and the necessity for hysterectomy. Therefore, in order to decrease morbidity and mortality and maintain fertility, it is critical to obtain an early and accurate diagnosis of caesarean scar pregnancy.

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