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Implanted in the scar: A high-stakes case of cesarean scar ectopic pregnancy

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CASE REPORT

A 37-year-old female patient, G2P1, presented to the Emergency Department with vaginal bleeding and lower abdominal cramping. The patient reported mild spotting over the last few days; however, the bleeding became severe around 4 AM in the morning, prompting her to be evaluated in the Emergency Department. The patient reported she was saturating pads every 30 minutes to 1 hour and endorsed the passage of large clots. She stated her last menstrual period was one month prior. The patient denied pregnancy, but reported no contraception use of any form. The patient reported her vaginal bleeding was constant, severe, and heavy. Her examination revealed tenderness on palpation across her lower abdomen. The patient's BhCG was noted to be positive at 8769 mIU/mL. The patient underwent transvaginal ultrasound that revealed an empty uterine cavity and cervical canal, but noted a gestational sac with a fetal pole embedded in the myometrium at the site of the cesarean scar, unable to classify Type 1 (endogenic) vs Type 2 (exogenic) CSEP (Figure 1). Color Doppler imaging showed increased vascularity around the gestational sac consistent with a CSEP. Due to the risk of uterine rupture, the patient was admitted to the OBGYN service for further urgent surgical intervention. The patient underwent laparoscopic wedge resection of the uterus with removal of the ectopic pregnancy. Postoperatively, the patient recovered uneventfully and was discharged home in stable condition.

Figure 1: Ultrasound of ectopic pregnancy in cesarean scar.

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DISCUSSION

This case illustrates a classic presentation of CSEP requiring urgent intervention. A review of the literature demonstrated an increased incidence and recognition of CSEP over the past two decades [1]. The clinical presentation of CSEP is variable, but is associated with severe maternal morbidity and mortality [1, 2]. This case emphasizes the critical importance of high clinical suspicion, early intervention and prompt use of ultrasonography with CSEP to prevent potential complications such as uterine rupture.

Timor-Tritsch et al. and Jurkovic et al. also emphasize how early diagnosis via transvaginal ultrasound is a critical tool to avoid catastrophic outcomes. The patient in our case underwent laparoscopic wedge resection, while many case reports discuss management of CSEP with systemic or local methotrexate [3, 4]. Laparoscopic wedge resection offers several advantages over conservative management for CSEP and hysteroscopy; including, completely excising the gestational tissue and repairing the uterine defect, rapid decline in BhCG,

reduced recurrence risk, and preservation of fertility [5]. In contrast, while hysteroscopy allows for direct visualization and removal of tissue with minimal blood loss and uterine preservation, it does not permit full scar revision [6]. Thus, laparoscopic wedge resection is preferable in cases with deeper implantation or risk of uterine rupture. As the incidence of CSEP continues to increase, heightened awareness and utilization of ultrasonography are essential for improving patient outcomes and reducing maternal morbidity and mortality.

CONCLUSION

This case illustrates a classic presentation of CSEP requiring urgent intervention. With a rising incidence over the past two decades, CSEP remains a significant contributor to maternal morbidity and mortality. Early diagnosis—primarily through high clinical suspicion and prompt transvaginal ultrasound—is critical to preventing life-threatening complications such as uterine rupture. As demonstrated in this case, timely surgical management can lead to favorable outcomes, emphasizing the need for increased clinician awareness and early imaging in at-risk patients.

Keywords: Cesarean scar implantation, Ectopic pregnancy

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Author Contributions

Hope Allen – Conception of the work, Design of the work, Drafting the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

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