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The tip of the iceberg: Post caesarean wound dehiscence presenting as abdominal wound sepsis



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ABSTRACT

INTRODUCTION: Uterine scar dehiscence can complicate caesarean section with complications like post partum hemorrhage, endomyometritis, localized/generalized peritonitis, and sepsis.

PRESENTATION OF CASE: Our patient had abdominal wound infection after LSCS surgery and features of sepsis. The wound infection was actually the presentation of a uterine scar dehiscence and localized peritonitis.

DISCUSSION: Incidence of uterine scar dehiscence is around 0.6%. Presentation can be post partum hemorrhage, endomyometritis, and generalized/localized peritonitis. Peritonitis caused by uterine incisional necrosis must be dealt surgically. A high index of suspicion with appropriate investigations can highlight such problems for early treatment and cure with least morbidity especially related to further pregnancies.

CONCLUSION: Uterine scar dehiscence with infection requires high index of suspicion as rare cause for post partum localized/generalized peritonitis with sepsis. Severe abdominal wound infection after caesarean section may be associated with uterine wound dehiscence, which poses a grave risk to the mother in a future pregnancy.

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1. Introduction

Though rare, uterine scar dehiscence can sometimes complicate lower segment caesarean section operation with complications like post partum hemorrhage, endomyometritis, localized/generalized peritonitis, and sepsis [1–3]. We present a case of a patient who had wound infection post LSCS surgery and features of early sepsis. In the due course of our treatment only we realized that the wound infection was actually the presentation of a uterine scar dehiscence and localized peritonitis. The initial presentation of the LSCS uterine scar dehiscence as infection of the abdominal wound made this case report very unusual.

2. Case presentation

A 25-year-old female patient was referred to the hospital for care of wound infection in a low transverse abdominal incision for LSCS. The patient was a Primigravida and had undergone LSCS for deep transverse arrest 7 days ago at another hospital. The LSCS had been performed for deep transverse arrest causing fetal distress and there had been signs of chorioamnionitis during labor. She had rupture of membranes 12 h prior to presentation to hospital for delivery. She had uneventful recovery apart from the wound infection. There were no complaints of per vaginal bleeding or discharge at all.

On presentation, the patient had fever spikes of around 101–103 °F with tachycardia. The patient had pus discharge and gaping of the wound. Apart from the wound infection the abdominal findings were unremarkable and so was the per vaginal examination. The patient's investigations showed raised WBC counts and low hemoglobin. Her other biochemical parameters were normal. The pus sent for culture and sensitivity showed *Staphylococcus aureus* infection with sensitivity to Meropenem, which was taken as the drug of choice for treatment of the wound infection.

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After few days of antibiotic treatment with daily wound dressings with occasional debridement the patient's condition improved. An ultrasonography of the abdomen showed a collection with stranding in the Pouch of Douglas. Further extension of wound infection in the abdominal cavity was thought of and decision for exploratory laparotomy was taken. Patient was posted for surgery after consent.

During exploration, there was no abdominal wound dehiscence. Around 50 ml thick pus was seen in the pelvic cavity and was drained. Further exploration revealed a uterine scar dehiscence with sloughed out margins and localized abscess formation. There was evidence of endomyometritis and the uterus was rechecked for any products or collection. After thorough abdominal lavage the uterine margins were refashioned and defect approximated with interrupted sutures using vicryl sutures. Drains were placed in the pelvis and in the subcutaneous planes. A vaginal pack had been placed for 6 h post operatively and after removal the vagina was inspected for any signs of pus discharge. The removal of the pack did not show any signs of pus discharge. Postoperative recovery was uneventful. Drains were removed subsequently and patient was discharged for follow up on fifth postoperative day.

3. Discussion

Incidence of uterine scar dehiscence irrespective of the cause is around 0.6% worldwide [4]. Typical important causes would be previous lower segment cesarean section, classical cesarean section, previous uterine trauma, congenital anomaly, abnormal placentation, and inappropriate oxytocin administration [4,5].

Presentation of patients can be post partum hemorrhage, endomyometritis, and generalized and localized peritonitis. Some patients may be diagnosed immediately after childbirth and some may have presentation after about 2–4 weeks of delivery. Identification of the condition requires a high index of clinical suspicion and dependence on radiological signs seen on ultrasonography (transvaginal/3D) or the CT scan [6].

Dehiscence of a lower uterine segment incision is rare but potentially dangerous cause of localized/generalized peritonitis. If the infection begins in an intact uterus and extends into the peritoneum, antimicrobial treatment alone usually suffices. Conversely, peritonitis caused by uterine incisional necrosis must be dealt surgically [7,8].

Peripartum hysterectomy is performed as treatment of choice in 6% of patients with postoperative uterine wound sepsis and necrosis [9]. Severe cellulitis of uterine incision may lead to necrosis and separation. Extrusion of purulent material commonly leads to peritonitis. Because puerperal metritis with cellulitis is typically a retroperitoneal infection, evidence of peritonitis suggests the possibility of uterine incisional necrosis, or less commonly a bowel injury [7].

Infection associated with uterine dehiscence can present with fever, tachycardia, features of anemia, features of sepsis, and clinical signs like suprapubic tenderness and per vaginal tenderness. Intra-abdominal sepsis can present with free fluid within the abdomen, bowel distension, pleural effusion, and bladder flap hematoma [10,11].

Exploratory laparotomy should be considered as the most important tool for diagnosis and treatment for uterine scar dehiscence and repair. Conservative resuturing after debridement can be chosen, but in presence of marked wound infection, endomyometritis and/or intra-abdominal abscess, hysterectomy should be considered [2,10,12]. There are still, reports of conservative treatment even in the presence of infection [8,11]. Missing the diagnosis and prolonging treatment may cause heavy menstrual bleeding abnormalities and even require repair after many years with long-

term complications [3]. The future pregnancies in such patients heralds risk of scar rupture again and needs prior assessment and a high index of suspicion.

4. Conclusion

Uterine scar dehiscence with infection requires a very high index of suspicion as a rare cause for post partum localized/generalized peritonitis and sepsis. CT Scan remains one of the best diagnostic tools like the ultrasonography (transvaginal/abdominal), but in any suspicious circumstance, an exploratory laparotomy should never be avoided or delayed. A severe abdominal wound infection after caesarean section may be associated with uterine wound dehiscence, which poses a grave risk to the mother in a future pregnancy. A high index of suspicion with appropriate investigations can highlight such problems for early treatment and cure with least morbidity especially related to further pregnancies.

Conflicts of interest

No conflicts of interest present.

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Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Author contribution

Dr Kaundinya Kiran Bharatam: Primary surgeon in case. First and corresponding author in the case report.

Dr Vasundhara Thiagarajan: Consultant obstetrician and gynecologist involved in treatment of the case.

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Dr A Vasantha Ragavan: Post graduate student involved in writing the article.

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