

Case Report: Rectus Sheath Abscess Following Vaginal Delivery

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Abstract

Background: Rectus sheath abscess is a rare but serious complication in the postpartum period. This report aims to present a case and discuss the potential pathophysiology and management.

Case: A 29-year-old para 3 woman presented 19 days after an uncomplicated vaginal delivery with lower abdominal pain, fever, and a suprapubic mass. Imaging confirmed a rectus sheath abscess. She was successfully managed with intravenous antibiotics and surgical drainage.

Conclusion: This case highlights that a rectus sheath abscess, though uncommon, should be considered in the differential diagnosis of a postpartum woman presenting with abdominal pain and fever. A high index of suspicion, prompt imaging, and a combination of surgical intervention and antibiotics are crucial for a successful outcome.

Background

Postpartum infections, including abscess formation, are significant complications that can arise after vaginal delivery. This case report details a 29-year-old woman who developed a rectus sheath abscess 19 days after an uncomplicated vaginal delivery. The case illustrates the clinical presentation, diagnostic approach, treatment, and outcomes associated with this rare condition.

Case report

A 29-year-old para 3 woman presented with lower abdominal pain that began one week postpartum. She delivered a 2.9 kg female newborn vaginally after being induced for gestational hypertension. The patient had intermittent low-grade fever and difficulty walking. Initial treatment at a private clinic included unspecified intravenous (IV) medications, but her symptoms persisted, leading to a referral to our center. Upon examination, the patient was febrile (38°C) and exhibited a 10 cm by 8 cm suprapubic tender mass and uterus was not palpable. Laboratory findings included slight leukocytosis with left shift and thrombocytosis (PLT: 734,000 K/ μ L). An abdominal ultrasound revealed a suprapubic collection of approximately 188 cc of thick fluid, indicating a rectus sheath abscess.

Management

The patient was admitted with a diagnosis of postpartum fever secondary to a rectus sheath abscess. Initial management included IV antibiotics & abscess drainage. She took ceftriaxone 1 g IV twice daily and metronidazole 500 mg IV three times daily for 7 days. Abscess Drainage was done under spinal anesthesia, a midline incision was made, and approximately 100 ml of thick pus was drained from the subfascial area. Culture from the pus was polymicrobial. The cavity was thoroughly lavaged with normal saline, and a drainage was placed & removed after 48hr because there was no drainage output.

Discussion

Rectus sheath abscesses are rare but can occur postpartum, often due to ascending infections from the lower genital tract (4). The pathogenesis involves the inoculation of bacteria from the

genital area into the abdominal wall, potentially exacerbated by factors such as increased intra-abdominal pressure during delivery or fundal pressure (2). In this case, the abscess formation was likely due to a combination of factors, including the patient's postpartum status and potential contamination of minor lacerations during labor. The absence of prior hematoma formation suggests that the infection ascended from the superficial fascia, leading to localized abscess development. The bacteria that colonize the lower genital tract inoculated the laceration site and the superficial fasciitis was caused by the lymphatic transmission of the organisms from superficial pudendal lymph node of colles fascia to superficial fascia of camper and scarpa. The spread of infection from the superficial to deep lymph node to rectus abdominal sheath lead to localization and abscess formation. While our primary management was surgical drainage, percutaneous arterial embolization remains a critical intervention in cases complicated by significant hematoma (6).

Conclusion

This case underscores the importance of recognizing and managing postpartum complications such as rectus sheath abscesses. Early diagnosis and appropriate surgical intervention, combined with antibiotic therapy, can lead to favorable outcomes. Currently the mother is in good condition, highlighting the effectiveness of timely surgical drainage and medical management in resolving this rare but serious complication.

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Conflict of Interest

No conflict of interests.

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Declarations

Ethics approval and consent to participate

This case report was reviewed and approved by the Addis Ababa University Institutional Review Board (IRB). Written informed consent to participate was obtained from the patient.

Consent for publication

Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

Availability of data and materials

3. All data generated or analysed during this study are included in this published article and its supplementary information files.

4. The datasets generated and/or analysed during the current study are not publicly available due to [REASON(S) WHY DATA ARE NOT PUBLIC], but they are available from the corresponding author upon reasonable request.

5. The data that support the findings of this study are available from [THIRD PARTY NAME]; however, restrictions apply to the availability of these data, which were used under licence for the current study and are therefore not publicly available. Data are, however, available from the authors upon reasonable request and with permission from [THIRD PARTY NAME].

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Competing interests

The authors declare that they have no competing interests.

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