Case Report

Puerperal sepsis with a rare complication of anterior abdominal wall necrotizing fasciitis- A case Report.

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Abstract

We report a case of a previously healthy woman, Mst. Borna Khatun, 25 years old, who developed puerperal sepsis with extensive lower abdominal necrotizing fasciitis after an uneventful home delivery. She presented to us with the complaints of lower abdominal pain, fever & foul smelling per vaginal discharge for 09 days with history of vaginal delivery by an untrained dai at home 13 days back. On general examination she was toxic, her temperature was 103F, and lower left half of abdomen was tender & rigid. On per vaginal examination there were foul smelling discharge & unhealthy lateral vaginal wall with laceration (small), with extensive debridement & daily dressing patient recovered & discharged.

Keywords: *Home delivery. Puerperal sepsis, Anterior abdominal wall necrotizing fascitis.*

Introduction

Puerperium is the period following childbirth, during which the body tissue especially pelvic organ reverts back approximately to the pre-pregnant state both anatomically & physiologically. Its duration lasts for approximately 6 weeks. An infection of the genital tract that occurs as a complication of delivery is termed as puerperal sepsis[1]. When compared with the dramatic & climatic events of delivery, the puerperium may seem uneventful. Nevertheless significant physiologic changes occur during this interval & they undoubtedly influence many of the problems. That often arises rapidly & without warning. Hypotension & shock demand urgent treatment & careful follow up. Appropriate medical & surgical consultation is also recommended[2]. Pregnant women are more common in those of low socio-economic status. Who had undergone operative delivery? It may be vaginal or abdominal, with premature rupture of membranes with prolonged labour & who have multiple pelvic examination as well as unhygienic home delivery. The organisms causes sepsis & necrotizing fascitiis are - Staphylococous aureus, Enterobacter agglomeras, Anterobacter baumannii, Enterobacter cloacae[2].

A Case Report

Here we report a rare case of polymicrobial abdominal wall anterolateral & retroperitoneal necrotizing fasciitis after home delivery. A 25 years old lady at 40 weeks of gestation delivered a healthy male baby at home with the help of an untrained dai. The patient presented to our institute on 03/12/2014 at her13th post partum day with the complaints of lower abdominal pain, fever, generalized weakness, nausea, vomiting & per vaginal foul-smelling discharge for 09 days. She had no significant past medical history. On examination she looked toxic, temperature- 103'F, heart rate with sinus tachycardia of 154/m, blood pressure 85/50 mm of Hg. Her lower left half of the abdomen was tender & rigid. Her cervix & vagina were lacerated & foul smelling

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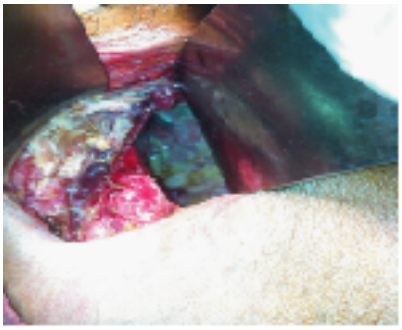
discharge was present. Collected puss was send for culture & sensitivity test.
Her laboratory tests were-
WBC-23000/L
Hb%-7.9 gm/dl
RBS-7.1mmol/L
Electrolytes-within normal limit
Ultrasonography- Mild collection in endometrial cavity & anterior abdominal wall cellulites.
CT scan of abdomen & pelvis-No abnormality detected.
Urine R/M/E-Feature of infection present.
Urine culture-No growth.
Swab culture-Growth present.
Blood culture- No growth.
Broad spectrum antibiotic coverage was started on admission, but patient was not responding.
General surgery consultation was sought & the patient was posted for surgery.

Under general anesthesia, genital organs were explored and left lateral fornix looked unhealthy, then a gentle evacuation of endometrial cavity of the uterus was done. These findings were not co-relating with the patient's clinical scenario. General surgeon came & performed an exploratory extraperitoneal approach on antero lateral abdominal wall, there was extensive necrotizing fasciitis involving antero-lateral abdominal wall & retroperitoneam, in the left lower half of the abdomen. An abscess was found in the left side of pelvis, which was communicate with the vaginal canal through left lateral fornix, the infection tracked up through rectus sheath on left side. There were also mild myonecrosis. The reproductive organs were not involved with abscess cavity but they were edematous, inflamed & formed the wall. Extensive debridement was performed & the wound kept open for daily dressing. After surgery the patient was shifted to general surgery ward, where daily dressing were done & patient improved dramatically.

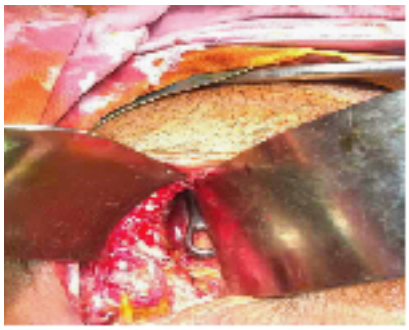
Discussion

Serious & sometimes fatal complications my arise during the puerperium. The most serious complications are thromboembolism, infection, haemorrhage, mental disorder, breast problems as well necrotizing fasciitis (rare)[3]. Necrotizing lesions of soft tissue are infrequently encountered in routine surgical practice. The term necrotizing fasciitis different syndromes of progressive gangrenous infections of skin & subcutaneous tissue into a single category[4]. It is a rare, rapidly progressive infection that affects the fascia & subcutaneous tissue concomitantly with the development of thrombosis of skin microcirculation resulting in necrosis of skin & soft tissue, destruction of muscles & liquefaction of fat[4,5]. The necrotizing fasciitis is a fulminate infection involving extension area of soft tissue necrosis most commonly occur in limbs, perineum & anterior abdominal wall[6]. The etiology of necrotizing fasciitis is not fully understood. Major risk factors include diabetes mallitus as well as age greater than 50 years & appear to be associated with the high morbidity & mortality[7].

These factors were absent in our cases, however necrotizing fasciitis following delivery has been reported due to polymicrobial infections, which might be the mechanism of pathogenesis of our case. Most patient present with sign of inflammation such as erythematic swelling & pain at the infected site. Severe pain disproportionate to local findings & associated with systemic toxicity should definitely raise the suspension of necrotizing fasciitis. Radiologic plain films imaging reveals gas in the muscle &superficial fat in only approximately 35% of cases. CT may distinguish cellulites from necrotizing fasciitis & help to guide management[8].



Picture showed a large abscess cavity in left side of the pelvis & left retroperitoneal region .



Picture showed an abnormal communicating tunnel (where sponge holding forcep is noted)between vaginal canal and abscess cavity in the pelvis.

The treatment is complex. The priority lies in an urgent surgical debridement with a targeted application of broad spectrum antibiotics. Often the combined surgical antibiotic treatment is insufficient, prompting the use of auxiliary measures, such as negative pressure wound therapy or hyperbaric oxygenation[9,10]. It is important to note that surgical debridement may necessary & the closure of the fascia after the first debridement is not advisable to facilitate further operation.

Conclusion

Necrotizing fasciitis in the post partum patient remains a rare challenge. With high moratlity. This patients rapid deterioration with septic shock & multi-system organ failure could have resulted in maternal health. Clinical suspension must remain high despite the rarity of the disorder as early as diagnosis is critical & is most commonly made without confirmatory radiological imaging. Early aggressive debridement of any & all necrotic tissue forms the cornerstone therapy, with additional serial debridements offering the best chance of survival.

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