A rare case of necrotising fasciitis after spinal anaesthesia

Sir,

Necrotizing fasciitis (NASTI) is a progressive, lethal and often polymicrobial bacterial infection of the fascia and surrounding soft tissue. The risk of infection during regional anaesthesia is very low. We present a case of necrotising fasciitis as a result of *E. coli* complicating operating room spinal anaesthesia injection.

A 27-year-old female was admitted in the emergency department with severe pain, swelling, erythema and blackening involving nearly whole of the back, part of anterior abdomen and gluteal regions accompanied by fever and chills. The patient had a history of caesarean section delivery for non-progression of labour with fetal distress 20 days back in a hospital near by her residence for which spinal anesthesia was given. There was no history of diabetes mellitus, chronic infections, immunosuppressive medications intake and leukemias or lymphomas. She took inj.diclofenac sodium intravenously on 1st post operative day and thereafter switched to oral tablet. On examination, the patient’s general condition was very poor. Her temperature was 40°C, pulse rate was 130/minute, blood pressure was 84/52 mmHg and respiratory rate was 24/minute. There was extensive deep necrotizing fasciitis of the whole of back and part of anterior abdomen and gluteal regions with gangrene and foul smelling exudates [Figure 1]. Early goal directed therapy (EGDT) for septic shock (1) central venous

![Figure 1: Extensive deep necrotizing fasciitis of the whole of back and part of anterior abdomen and gluteal regions with gangrene and foul smelling exudate](image_url)
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The early symptoms. The development of pain and erythema first at lumbar region shows the route of entry is through spinal injection. Erythema, blister, discharge, necrosis and hemorrhagic bullae may be present. Viral symptoms may be present in the form of chills, fever, myalgia and diarrhea. Late stages may land in multiorgan failure and disseminated intravascular coagulation. Laboratory tests, tissue biopsies and cultures along with appropriate imaging studies may facilitate the diagnosis of necrotizing fasciitis.

Treatment includes broad spectrum antibiotics, aggressive debridement of suspected deep-seated infection and supportive measures for the management of septic shock and multiorgan failure. Hyperbaric oxygen therapy and intravenous immunoglobulins have been shown to reduce the mortality. In this case, unfortunately no exact records were obtained regarding the aseptic techniques followed in operating room while giving spinal anesthesia. Other potential source of infection could be contaminated anesthetic solution or syringes. A portal of entry from the patient's skin or from the oropharyngeal cavity of the operating room personnel was suspected based on the studies. Wearing a facemask before entering the operating room and allowing time to ensure effective antibacterial action of antiseptics have been recommended for the practice of regional anesthesia. Delay in diagnosis and surgical treatment probably ended in mortality in this case. Strict adherence to the principles of asepsis is the foundation of regional anesthesia-related infection prevention.
Epidural catheter kinking over the scapular margins

Sir,

Continuous epidural analgesia is an effective modality for peri-operative pain management. However, epidural analgesia may fail due to kinking or knotting of the epidural catheter.[1,2] We are reporting the inadvertent blockage of the epidural catheter secondary to its routing from over the scapula.

A patient was posted for exploratory laparotomy and an epidural catheter was placed in sitting position at T11-12 space. The epidural catheter was secured at the puncture point using an epidural fixation device. Test dose was injected easily using a 5-ml syringe and subsequently, the catheter was fixed using transparent sterile adhesive dressing to the patient's back. The patient was laid supine, and standard monitoring was attached. The epidural catheter was connected for continuous infusion of local anaesthetic at 7 ml/hour with a syringe pump. General anaesthesia was induced and invasive arterial and central venous lines were inserted. The patient was positioned with the arms by his side. Approximately 1 hour since induction of the anaesthesia, when the surgery had just started, infusion pump started giving occlusion alarm. Manual injection using the 5-ml syringe confirmed the alarm. Surgery was interrupted and the patient was turned to one side to allow inspection of the epidural catheter. Manual palpation of the epidural catheter did not reveal kinking. The adhesive dressing on the epidural catheter was removed and the catheter was inspected and palpated. No kink could still be appreciated. However, when the catheter was palpated firmly against the back of the patient with the arms of the patient by his side, the kinks became obvious at the margins of the scapula. Rerouting the catheter away from the scapular margins resolved the obstruction. Such corrective measure may not always be possible especially if the surgery has progressed to an advanced stage.

An epidural catheter warmed to the body temperature is softened and may kink under the surface of the skin.[3] We used a warming mattress besides other temperature maintaining strategy. This could have softened the catheter and made it prone to kink under the weight of the patient against the scapular margins which become prominent when the arms were positioned by the side of the patient. We suggest that caution should be exercised when warming mattress is used in patients with an epidural catheter and an epidural catheter should be secured away from scapular margins to prevent any potential blockage due to kinking.

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