

The Devastating Consequence of Epidural Abscess: A Tetraplegic Case

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INTRODUCTION:

Epidural abscess is a rare but potentially life-altering complication that can arise from spinal infections, surgical procedures, or epidural steroid injections. The most severe neurological outcome of epidural abscess is tetraplegia, which can result in complete loss of motor and sensory function in all four limbs and the torso. The diagnosis of epidural abscess-induced tetraplegia is often delayed, as the initial symptoms can mimic other spinal pathologies. In this report, we describe a case of a patient with a sudden onset of tetraplegia and was then diagnosed with epidural abscess.

REPORT:

A 30-year-old man presented to the emergency department after a motor vehicle accident, with complaints of neck stiffness and numbness in both upper limbs. He was discharged with analgesia but returned a week later, having undergone physiotherapy and spinal manipulation. At that point, he had lost all motor and sensory function in his upper and lower limbs. On examination, his muscle strength was noted to be significantly reduced in all limbs, with 0/5 power over the bilateral upper and lower extremities. Laboratory investigations revealed elevated levels of white blood cells and C-reactive protein. Further imaging studies, including MRI of the entire spine, revealed the presence of an extensive epidural abscess compressing the spinal cord, resulting in multilevel spinal canal narrowing and spinal cord edema. The patient underwent emergency surgery for laminectomy, drainage of epidural abscess, and removal of paravertebral abscess. The intraoperative findings were consistent with MRI, with a thick, purulent collection of material noted in the

epidural space and left paraspinal muscles. The dura appeared edematous, and the spinal cord appeared pale over the affected regions. Culture analysis of the abscess revealed the presence of *Staphylococcus aureus*. The patient was treated with a course of intravenous antibiotics.



Figure 1: pus collection over the epidural space

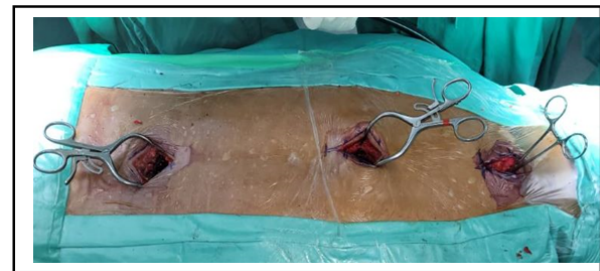


Figure 2: intraoperative picture of the incision made for the drainage

CONCLUSION:

Epidural abscess is a rare diagnosis which could be mistaken for other spinal conditions. Therefore, early recognition and timely intervention are crucial in preventing permanent neurological damage.

REFERENCES:

1. Chima-Melton, C., Pearl, M. & Scheiner, M. Diagnosis of spinal epidural abscess: a case report and literature review. *Spinal Cord Ser Cases* **3**, 17013 (2017).