

Conference

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Title

Cervical Osteomyelitis and Epidural Abscess Presenting as Central Cord Syndrome: A Case Report

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Case Diagnosis

Cervical epidural abscess with osteomyelitis and progressive cervical myelopathy

Case Description

A 55-year-old female with end-stage renal disease (on hemodialysis), congestive heart failure, chronic respiratory failure, and cervical spondylosis presented to the emergency department with altered mental status, chest/neck pain, and dyspnea. She was found to have a right-sided pleural effusion and methicillin-susceptible *Staphylococcus aureus* (MSSA) endocarditis with her dialysis catheter. The catheter was replaced, and she completed 6 weeks of intravenous (IV) antibiotics. Magnetic resonance imaging (MRI) demonstrated C3–C6 cervical stenosis with cord compression, although strength and sensation were preserved. She was discharged home afebrile with negative surveillance blood cultures. Weeks later, she returned to the hospital with worsened neck pain, progressive bilateral upper extremity weakness, and impaired sensation.

Setting

Tertiary care hospital with physiatry consultation

Results

She subsequently developed new bilateral upper extremity weakness and sensory deficits in the setting of known spinal cord compression, consistent with a central cord syndrome pattern. The physiatry consultant recommended repeat cervical spine MRI, which revealed acute C3–C4 osteomyelitis and anterior C4 epidural abscess. The patient underwent a C3–C5 surgical debridement with posterior cervical laminectomy and fusion. Postoperatively, the patient completed another prolonged course of IV antibiotics. Following decompression, neurologic decline stabilized with improvement in strength and sensation.

Discussion

Progressive neurologic decline in patients with cervical stenosis may obscure evolving spinal infection, particularly when early imaging appears noninfectious. Hemodialysis

and recent bacteremia increased this patient's risk for hematogenous spinal infection. This case highlights that cervical spinal infection may mimic central cord syndrome in advanced cervical stenosis.

Conclusions

In patients with prior bacteremia and cervical stenosis, progressive neurologic deficits should prompt investigation for developing spinal infection. Despite unremarkable initial imaging, maintaining suspicion for spinal infection and pursuing repeat imaging when symptoms worsen are essential to prevent delayed diagnosis and irreversible neurologic injury.