ACUTE EPIDURAL ABSCESS DURING A SPINAL CORD STIMULATOR TRIAL: A CASE REPORT

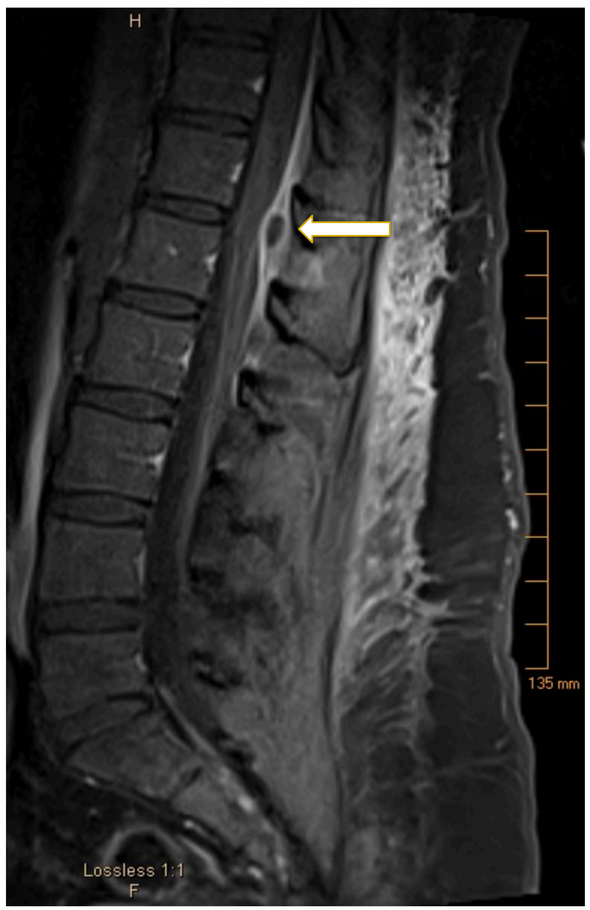
Benjamin Washburn, MD, Ebby Varghese, MD

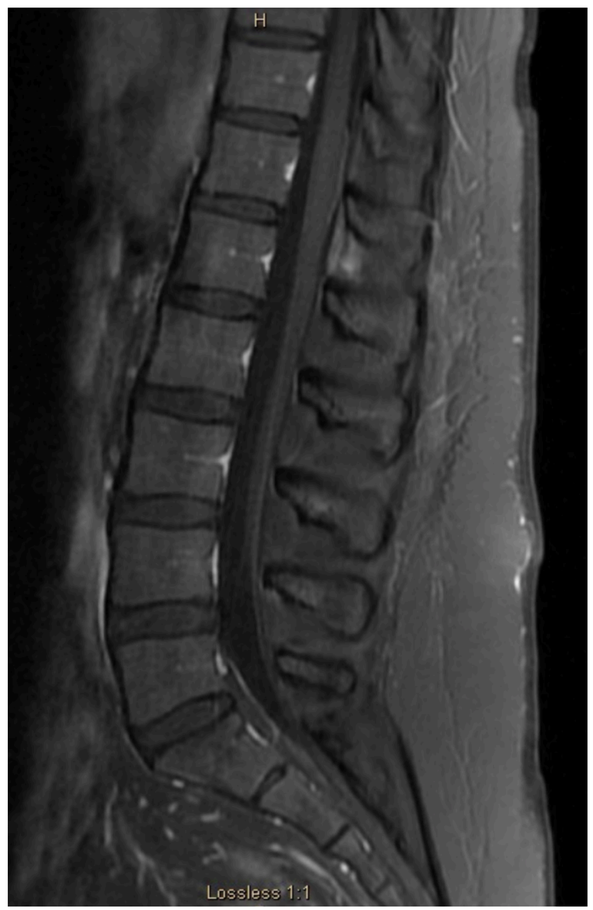
University of Missouri, Department of Physical Medicine and Rehabilitation, Columbia, MO

CASE PRESENTATION

- A 33 year-old female with chronic lower extremity neuropathic pain underwent a thoracic percutaneous spinal cord stimulator (SCS) trial.
- The trial lead was placed at the T12-L1 level under fluoroscopy using aseptic technique. Prophylactic antibiotics were administered peri-operatively. Notably, the patient had no predisposing risk factors for infection.
- The patient presented to the emergency department trial day four following two days of worsening back pain. Physical exam was unremarkable for fever, localized infection, or neurologic deficit. The trial lead was removed and the patient was discharged home.
- Patient was seen the following day in clinic by the implanting physician where physical examination revealed subtle nuchal rigidity with no neurologic deficits. Same-day laboratory analysis revealed elevated inflammatory markers. The patient was sent to the emergency department with concern for meningitis.
- MRI revealed 1.2 cm posterior spinal epidural abscess at T12-L1 with minimal effacement of the thecal sac and no spinal cord signal changes.
- Patient was successfully treated with long-term intravenous antibiotics. Resolution of SEA was confirmed on follow-up MRI.

IMAGING





Figures 1 and 2: T1-weighted fat-suppressed MRI sequences demonstrating T12-L1 posterior spinal epidural abscess (left) and subsequent resolution (right).

DISCUSSION

- Dorsal column stimulation can be beneficial in treating chronic neuropathic pain of the trunk and lower extremities refractory to conservative or surgical management.
- Prior to implantation of the permanent SCS, a brief trial is performed to assess for efficacy and tolerance.
- SEA is an uncommon complication of SCS trial with potentially devastating sequelae, particularly when the diagnosis is delayed due to nonspecific initial clinical presentation, i.e., lack of classic symptoms such as fever, pain, or neurologic deficit.
- It may be difficult to differentiate focal back pain from a complication from chronic pain or expected post-procedural pain.
- To our knowledge, there are no such published cases of SEA during SCS trial in a PM&R setting.
- We encourage clinicians to maintain acute awareness of possible SEA in this context as prognosis is highly dependent on a timely diagnosis.

CONCLUSIONS

- Expeditious diagnosis and treatment of SEA is essential in reducing morbidity and mortality but can be challenging when the clinical presentation is nonspecific.