

Extensive Spinal Cord Epidural Abscess in the Prescence of a Spinal Cord Stimulator

Harmanjot Singh, DO, Gwynne Kirchen, MD
Department of Anesthesiology – Pain Medicine
Medical College of Wisconsin/Froedtert Hospital, Milwaukee, WI

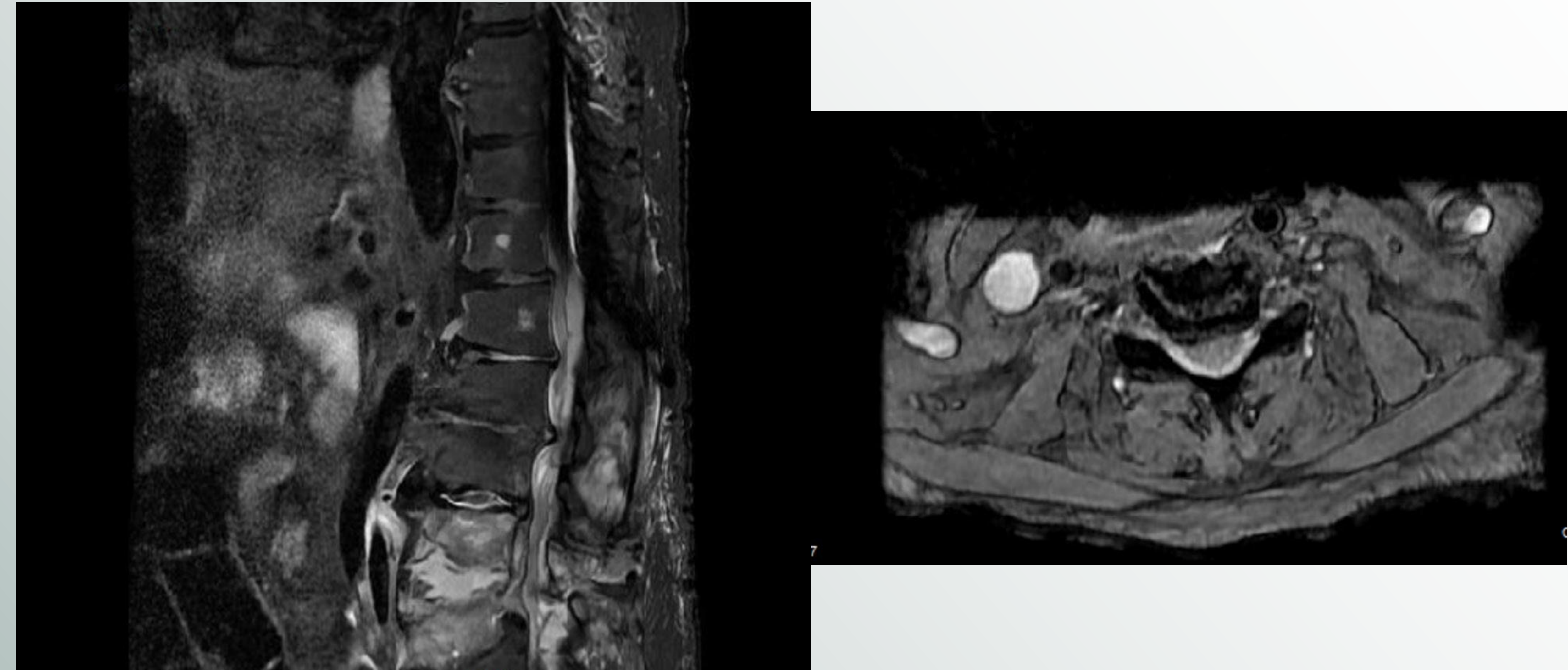
Introduction

Spinal cord stimulators (SCS) are considered a safe alternative for chronic pain syndromes with complications that can include lead migration, discomfort at the site of the impulse generator, and CSF leak¹. Neuraxial implantation of any device can also serve as a harbor for infection and subsequent development of a possible epidural abscess, although this complication has been reported to be rare in many instances¹. Localized severe back pain with associated neurologic symptoms in the presence of a SCS implantation must be further evaluated to rule out cord compression as was evident in the following case report.

Case Study

- A 70-year-old male with a past medical history significant for recurrent MSSA bacteremia and endocarditis and chronic low back pain with percutaneous SCS implantation in 2023 from an outside pain medicine physician.
- He endorsed worsening gait and lower extremity weakness since his discharge. He was seen by his outpatient neurosurgery team with plans for an elective T10-pelvis fusion to target the complaints.
- A preoperative CT L-spine was obtained and notable for osteomyelitis and discitis at L4-L5. Given these findings, he was recommended to follow up with his infectious disease physician.
- Unfortunately, he developed symptoms of infection and therefore presented to our ED. Signs of systemic infection were present with leukocytosis, flushing, and positive UA.
- An MRI of the L-Spine was significant for extensive intraspinal epidural abscess extending from the craniocervical junction to the sacral spinal canal, causing multilevel spinal canal narrowing.
- He underwent a C2-T12 decompression and fusion with evacuation of the epidural abscess, SCS removal and prolonged antibiotic therapy.

Images



Discussion

- While the risk for life-threatening complications related to SCS implantations is low, physicians must remain cognizant of the risk both in the acute and long-term time period.
- Current literature regarding SCS post-implantation infections focuses on acute presentations up to a month after the procedure.
- A unique aspect of this case report is the delayed onset of symptoms after the SCS was placed, leading to hypothesize that due to this patient's recent MSSA bacteremia, this infection may have seeded to the spinal canal and SCS percutaneous leads, causing a deeper infection.
- Spinal epidural abscesses are associated with a poor outcome requiring immediate neurosurgical intervention to avoid permanent neurologic deficits. This can present a challenge in diagnosis without imaging due to the SCS possibly masking many of the initial symptoms. This case report serves as a reminder for prompt work up of a patient who may have multiple sources of infection.

References

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