

Epidural Abscess After Radiofrequency Denervation

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INTRODUCTION

- Spinal epidural abscesses (SEAs) are rare with an estimated annual incidence of 0.2-2.8/10,000
- They are usually caused by *Staphylococcus aureus* and rarely by actinomyces
- Risk factors include those who are immunocompromised, IVDU, diabetes, HIV, trauma, tattooing, and bacteremia
- Presenting symptoms are typically non-specific with malaise, fever, back pain, and possible neurological deficits
- We present a case of spinal epidural abscess (SEA) following radiofrequency ablation in a 59-year-old male

LEARNING OBJECTIVES

Spinal epidural abscess (SEA):

- Risk factors
- Presenting symptoms
- Findings on imaging
- Treatment

CASE REPORT

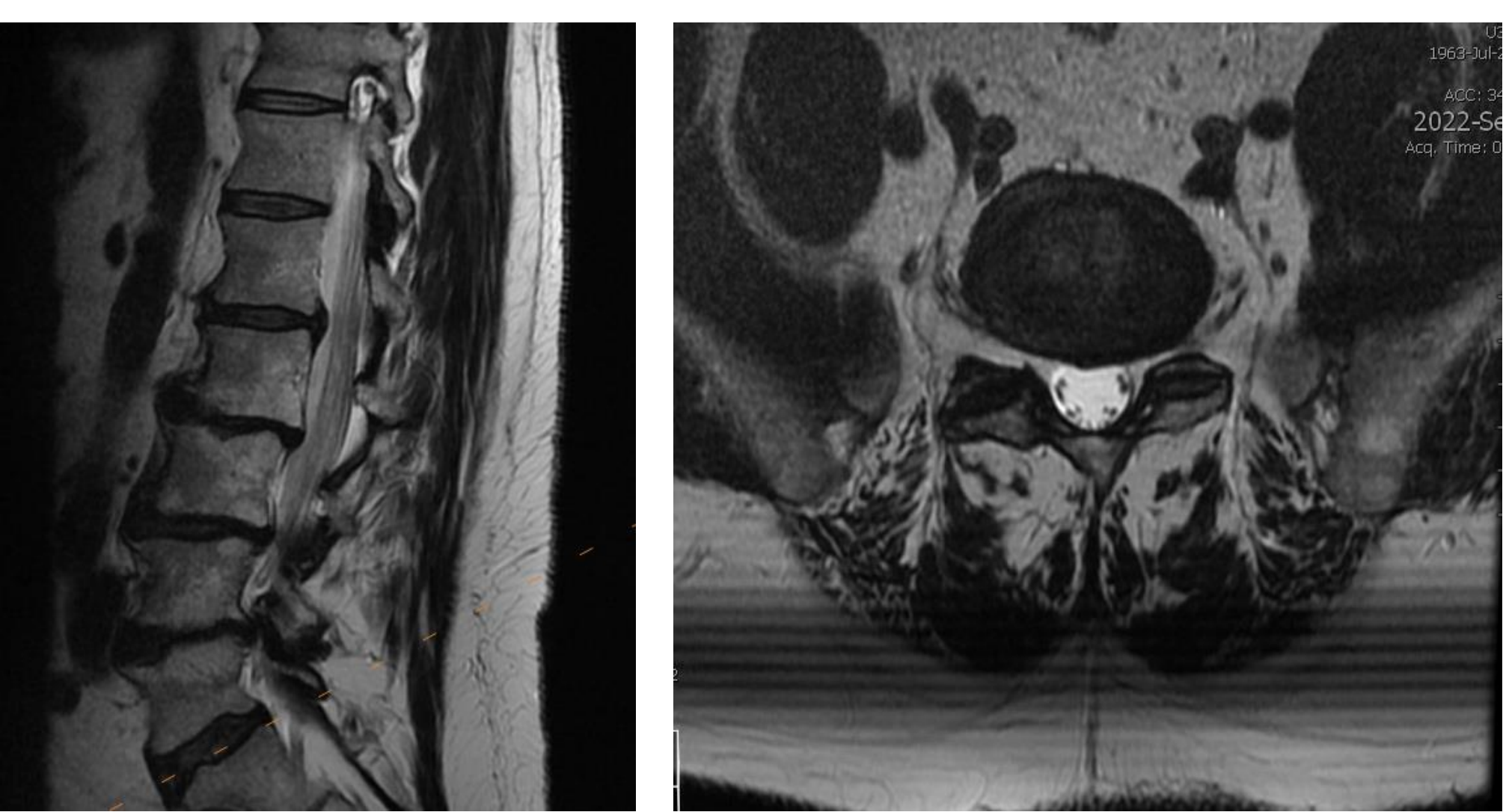
Our patient is a 59-year-old male who initially presented to the clinic for axial lower back pain

Pain Presentation

- Present for over 1 year
- Located at lower lumbosacral spine without radiation
- Exam positive for left paraspinal tenderness and positive facet loading (L>R)
- Completed PT, taking acetaminophen and NSAIDs without relief

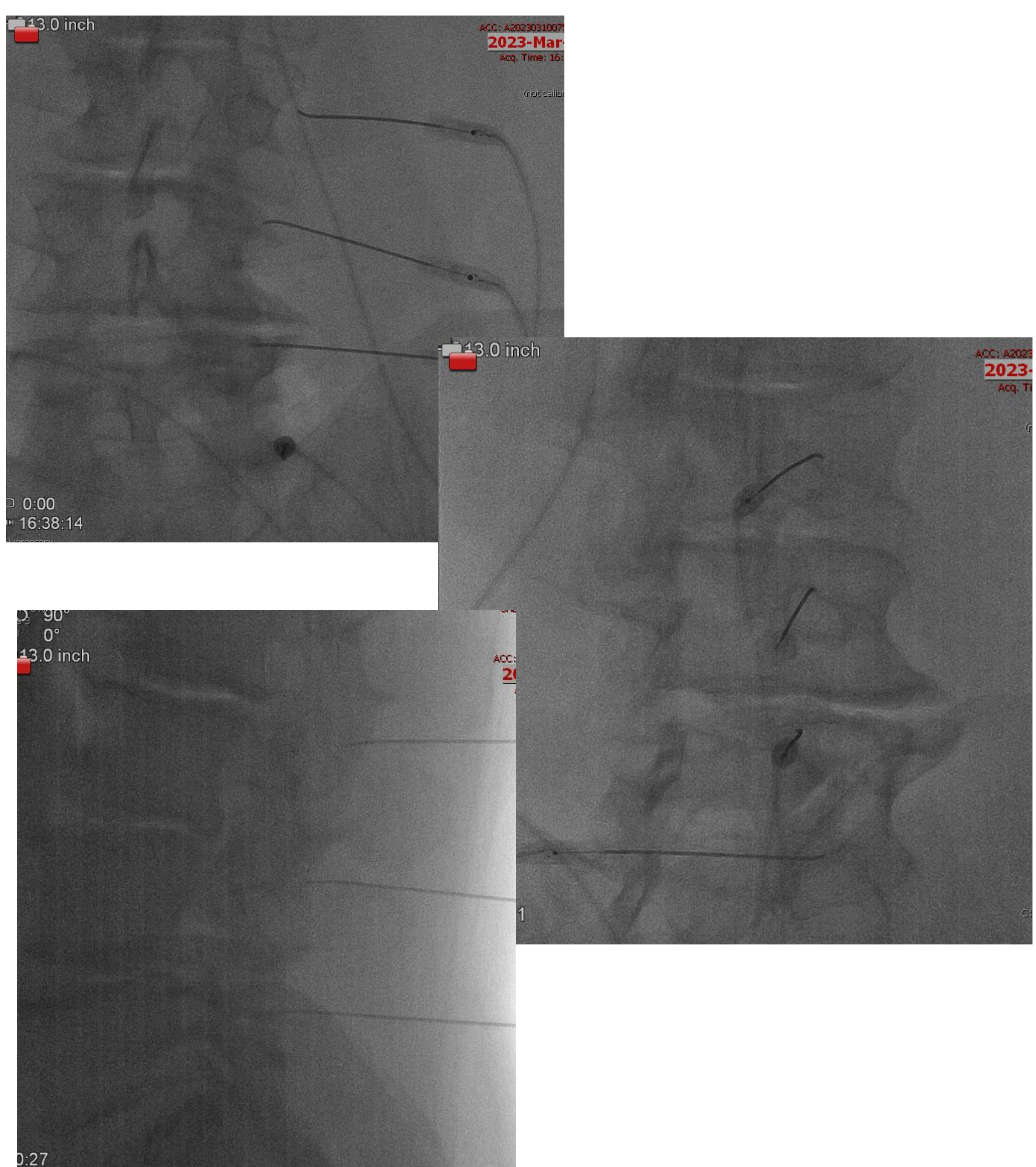
Initial MRI

- Disk bulge L3/4 and L4/5 , narrowed central canal and right and left foramen
- L5/S1 facet arthropathy



Treatment Plan

- RFA pathway:
 - > 80% relief x2 for bilateral MBB
- Bilateral RFA was performed, each a week apart



POST RFA

10 days after right sided RFA, he began to experience right sided hip pain that radiated down his right leg

- Denied bowel/bladder loss of function, numbness/weakness
- Went to ED and found to have possible para-facet abscess and associated myositis, as well as paraspinous and iliopsoas edema on lumbar MRI
- Underwent L3-5 laminectomy, debridement of epidural abscess
- Blood cultures positive for actinomyces

DISCUSSION

There have been reported SEA after chronic pain procedures such as MBB and transforaminal epidural steroid injections, but not after RFA to our knowledge

- SEA may form from surrounding vertebral osteomyelitis, hematological seeding, or direct contamination via surgical intervention
- SEAs cause mass effect on the underlying spinal cord or nerves, leading to pain with or without neurological injury. The location of the abscess can be anterior, posterior, or circumferential
- The presence of paraspinal edema in non-contrast MRI has the highest sensitivity for SEA compared to psoas, bone marrow, and disc edema
- For most patients, treatment is surgical decompression followed by four to six weeks of antibiotics
- Delay in the diagnosis of SEA can result in residual weakness or permanent neurologic deficit
- Any concern for SEA requires prompt evaluation and treatment

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