

Introduction :

- Treating patients with chronic pain is difficult due to the subjective nature of the complaints. Patients with chronic pain are often stigmatized as complainers, malingerers, and drug-seekers.
- We present a patient with a history of chronic pain, admitted for severe, unrelenting back and hip pain despite medication management, and multiple negative imaging studies.
- Extensive workup continued due to the patient's elevated inflammatory markers, leukocytosis, and subjective complaints. Eventually, psoas abscess was uncovered, an extremely rare complication of epidural injections for chronic pain management.

Case Description:

A 76-year-old female presented with severe left hip and back pain. She reported chronic back pain treated with Percocet. Two months prior, she had a kyphoplasty procedure at the T12 level for a compression fracture. She also had two epidural injections within the last month.

The patient was dismissed as exhibiting pain medication-seeking behavior as she was asking for IV opioids. She was vitally stable and afebrile. However, her inflammatory markers were elevated with an ESR of 90mm/hr and CRP of 20.2mg/dL. She also had an elevated white count of 19.7 with a left shift and hyponatremia 119, along with a positive UTI. She was started on treatment for UTI.

On day 3, she continued complaining of severe pain and labs continued to show elevated inflammatory markers. Blood cultures from admission grew *S. epidermidis*, which were thought to be a contaminant. Repeat blood cultures on day 3, confirmed *S. epidermidis*. She was started on Vancomycin; the source of infection was yet to be identified.

Over the next 2 weeks, CTAP and CT hip with contrast showed no gross lytic or blastic lesions, or effusions. She also reported 60lb weight loss. Bone scan revealed no bone metastasis.

Finally on day 18, an MRI lumbar spine showed discitis, osteomyelitis and a 2cm fluid collection in the right psoas muscle. Repeat CTAP confirmed the psoas abscess. The abscess was drained, and her pain improved significantly; blood cultures finally became negative, presumably due to a 2-week course of Vancomycin.

She was discharged home on Vancomycin and Ceftriaxone. At 6-week follow-up, she was ambulating without significant pain and her inflammatory markers were normalized.

Figures:

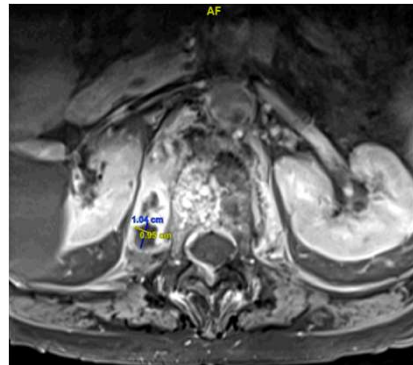


Figure 1. On Day 14, MRI showed abnormalities at the T12-L1 level, suspicious for discitis, osteomyelitis along with likely epidural extension and peripherally enhancing fluid compatible with a psoas abscess

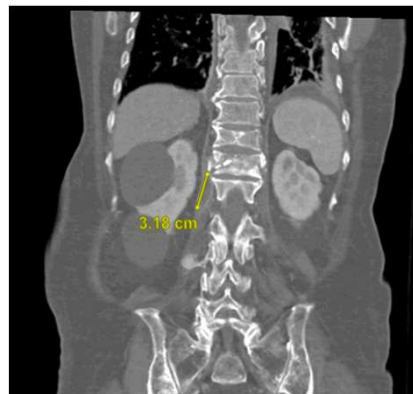


Figure 2. On Day 16, CTAP showing abnormalities involving lower thoracic spine, associated with small rim enhancing abscess in the right psoas muscle

References:

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Discussion:

- Pain related to infection/abscess may be difficult to identify in patients with history of pain and drug seeking behavior (1).
- Persistently elevated inflammatory markers despite treatment for pain control and treatment of concurrent UTI led to further workup in our case.
- Post procedural infections after an epidural injections are rare, infection occur in only 1-2% spinal injection, with the most common cause being *S. aureus* (2,3,4,5).
- Iliopsoas abscess has an insidious onset with a triad of back pain, fever, and limp (6,7); our patient had this along with referred pain on contralateral hip (which is an atypical presentation).
- Initial CT scan was negative in our case.
- *E. coli* was ruled out as cause; patient received ceftriaxone for UTI and blood cultures were never positive for *E. coli*.
- *Mycobacterium tuberculosis* was ruled out with negative AFB and quantiferon gold tests
- Local spread from GI tract was ruled out since CTAP did not show any related findings and blood cultures were negative for gram negative bacilli and anaerobes (typical bugs)
- Multiple repeat blood cultures positive for *S. epidermidis* with same susceptibility guided further investigation.
- Subsequent MRI showed psoas abscess (Figure 1 and 2).
- Treatment with Vancomycin led to sterile blood cultures confirming that abscess was due to *S. epidermidis* (8).

Teaching Points:

1. Patients with history of chronic pain require special attention when presenting with new pain complaints, even if they may already be receiving pain control treatment.
2. Complete lab work-up, including inflammatory markers, may be especially useful in determining if there is infection causing new pain complaints.
3. Detailed imaging studies should be considered with continued pain with inflammatory markers that fail to normalize.