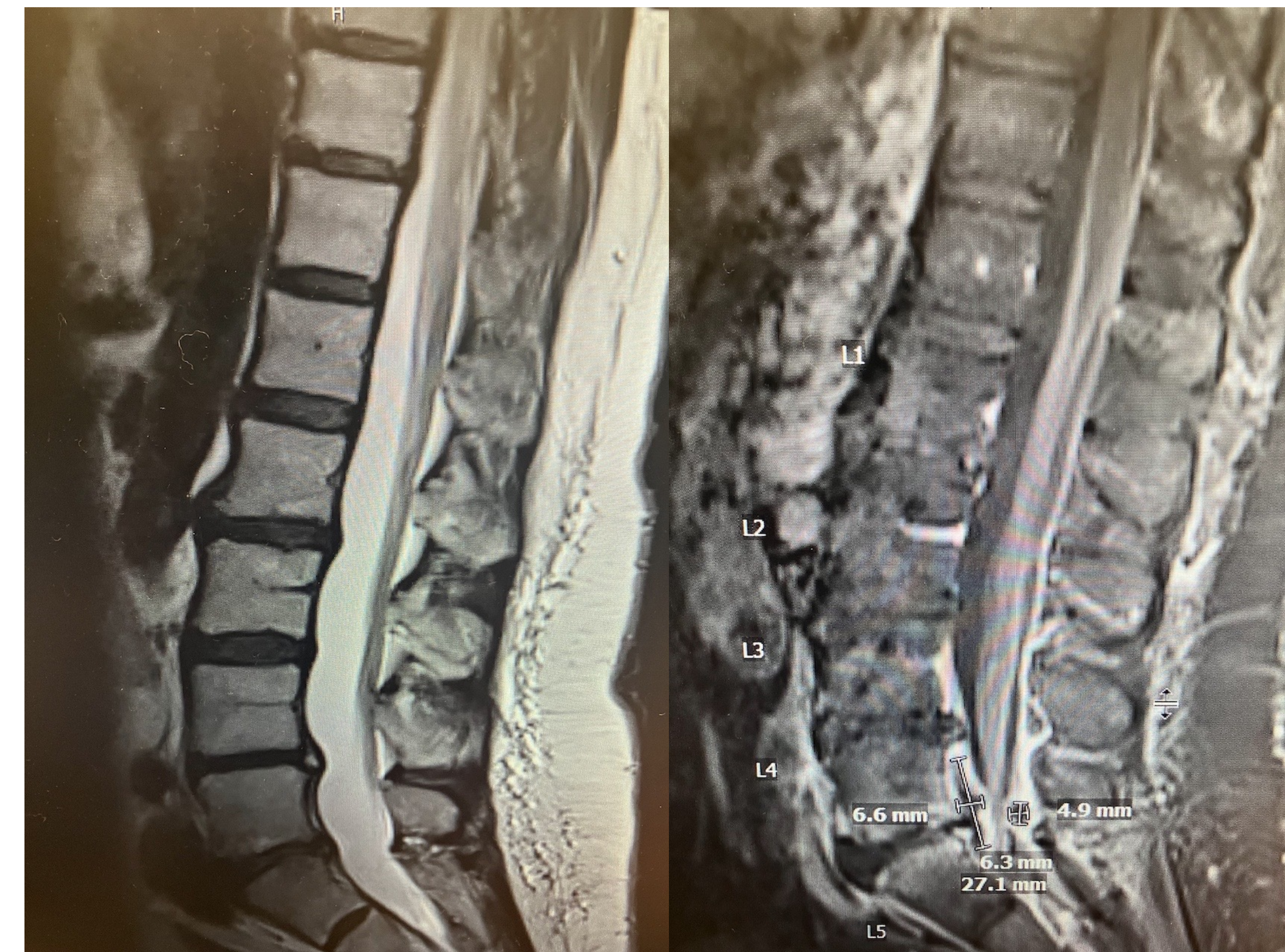


Identifying Various Pain Generators in a Medically Complex Patient: A Case Study

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Case Description

- 57 year-old female presented acute onset left lower back and hip pain with difficult ambulating due to pain. Her initial CT Abdomen and Pelvis and MRI Lumbar Spine were only significant for omental infarct and degenerative joint changes.
- During her hospital course, she developed fever and leukocytosis. Repeat CTAP and MRI L-spine imaging were newly significant for L4-5 discitis and osteomyelitis with extensive circumferential phlegmon.
- The patient was started on antibiotics based on culture sensitivity with laboratory and radiographic evidence of resolution of infection, but continued to endorse left lower back and hip pain
- Pain medicine was consulted due to intractable pain despite oral and IV agents and initiation of antibiotics
- Interestingly throughout her entire hospital course, she had 4/5 positive physical exam maneuvers consistent with Sacroiliac Joint (SIJ) dysfunction including positive FABER, Compression, Distraction, and Gaenslen tests.



MRI

Sagittal T2 image of the MRI Lumbar Spine demonstrating L4-5 osteomyelitis and discitis with surrounding phlegmon.

Discussion

- SIJ dysfunction is a common cause of lower back pain (LBP) due to severe axial loading, rotational forces, and/or repetitive microtrauma associated with wide array of etiologies
- Primarily diagnosed with history and physical exam as well as diagnostic injections, with imaging providing limited utility. Patient describe dull hip pain with insidious onset and on physical exam have pain at the SIJ.
- A study by Laslett et al. found that 3 or more positive provocative tests had a 91% sensitivity and 78% specificity for SIJ dysfunction.
- This patient consistently had left lower back pain and hip pain despite appropriate treatment and only improved to baseline functional status after diagnostic injection.
- In this case, it is easy to attribute her pain to any one of her various issues, including her omental infarct, discitis, or osteomyelitis. However, despite both clinical and radiographical resolution of these symptoms, her pain persisted.

References

1. Andersson GB. Epidemiological features of chronic low-back pain. Lancet. 1999;354(9178):581–585.
2. Kiapour A, Joukar A, Elgafy H, Erbulut DU, Agarwal AK, Goel VK. Biomechanics of the sacroiliac joint: anatomy, function, biomechanics, sexual dimorphism, and causes of pain. Int J Spine Surg. 2020;14:3–13.
3. Gartenberg A, Nessim A, Cho W. Sacroiliac dysfunction: pathophysiology, diagnosis, and treatment. European Spine Journal. 2021; 30(10):2936-2943.
4. Laslett M, Young SB, Aprill CN, McDonald B. Diagnosing painful sacroiliac joints: a validity study of a McKenzie evaluation and sacroiliac provocation tests. Aust J Physiother. 2003;49(2):89–97.

Conclusion

- it is likely that her presentation was multifactorial, and that her SIJ dysfunction was secondary to, or exacerbated by the other medical pathologies.
- This case underscores the importance of a thorough pain physical exam in order to elucidate multiple etiologies contributing to pain presentation.