

BACKGROUND

Chronic Back Pain

- 75-85% of Americans experience some form of back pain during their lifetime [1].
- 26% of U.S. adults report back pain within the past three months.
- Wait times for specialists such as orthopedists or pain management physicians can extend to 3-4 weeks[2].
- Diagnostic imaging often focuses on the spine, but incidental findings in surrounding structures can reveal significant unrelated pathologies.

CASE DESCRIPTION

Patient profile:

- 74-year-old female with a history of osteoporosis, monoclonal gammopathy, and right knee arthroplasty.
- Five-year history of chronic low back and right hip pain.

Differential diagnosis:

- Consideration of facet arthropathy, sacroiliitis, piriformis syndrome, and trochanteric bursitis.

Management:

- Piriformis syndrome and trochanteric bursitis injections were administered.
- MRI ordered to characterize back pain. Incidentally revealed a complex cyst in the left kidney.
- Primary Care Provider was notified.
- Renal CT and biopsy confirmed clear cell type renal cell carcinoma.

Next steps:

- The patient will undergo surgical resection.

DISCUSSION

This case demonstrates:

- Even a common complaint like low back pain warrants thorough evaluation and a comprehensive diagnostic approach
- The importance of adhering to the standard of care to ensure serious underlying conditions are not overlooked

FIGURES/TABLES

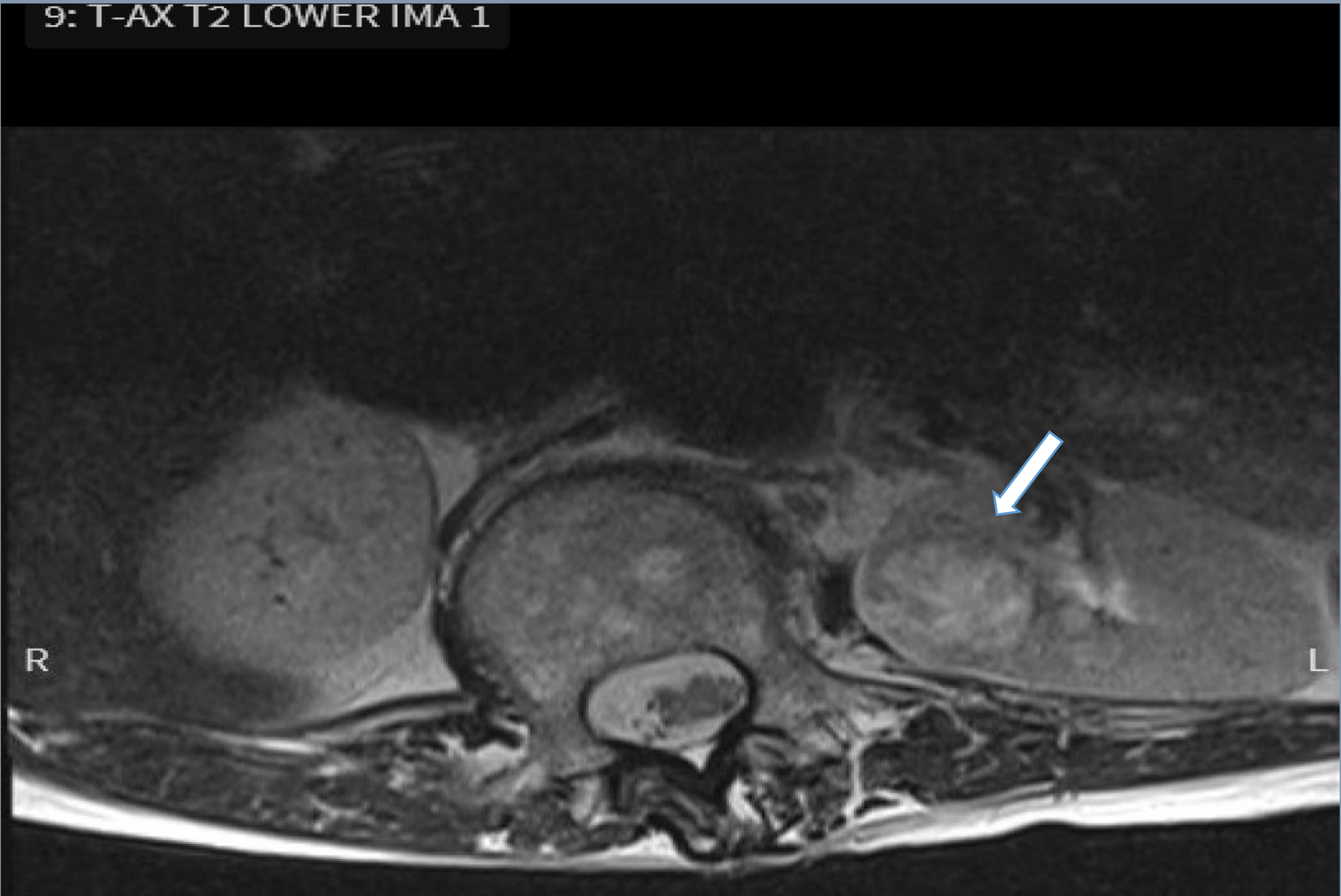


Figure 1. MRI of Thoracic spine with a radiology read of: There is partial visualization of a heterogeneous intermediate to high T2 signal intensity lesion within the mid aspect of the upper pole of the left kidney measuring approximately 2.4 x 2.3 cm in transverse size on the current examination.

Evaluation Step	Recommendations
Initial Assessment	• Thorough patient history and physical examination • Identification of red flags (e.g., significant trauma, unexplained weight loss, fever, immunosuppression, history of cancer, severe neurological deficits)
Imaging and Diagnostic Tools	• Delay imaging for nonspecific low back pain without red flags for 1-2 months • MRI preferred for patients with red flags or persistent radicular symptoms • CT scans when MRI is contraindicated or unavailable
Psychosocial Evaluation	• Assessment of psychosocial factors and "yellow flags" (e.g., depression, anxiety, job dissatisfaction)
Non-Surgical Interventions	• Education and self-care strategies • Exercise programs and physical therapies (e.g., spinal manipulative therapy, massage) • Pharmacological treatments (e.g., acetaminophen, NSAIDs, short-term use of muscle relaxants)
Specialist Referral	• Consider for patients with severe functional disabilities, radicular symptoms, or refractory pain • May include referral for epidural steroid injection or surgical evaluation

Table 1: This table summarizes the key steps in the evaluation of low back pain, based on the clinical practice guidelines published by Chou et al. (2007) in the Annals of Internal Medicine. The guidelines were jointly developed by the American College of Physicians and the American Pain Society to provide evidence-based recommendations for the diagnosis and treatment of low back pain.

DISCUSSION (CONT.)

- Guidelines recommend MRI as the initial evaluation for radicular pain (see Table 1)
- Such a thorough evaluation may not always be warranted, depending on: patient's history, physical exam and other diagnostic tools like X-rays [3]
- Comprehensive imaging is vital as the field of view often includes surrounding organs and tissues and can lead to significant incidental findings [4]

Renal Cell Carcinoma (RCC):

- Often asymptomatic in its early stages
- Frequently discovered incidentally [5]

Considerations regarding incidental findings:

- Raise ethical and practical considerations
- Necessitate sensitive communication
- Require guidance through subsequent diagnostic and treatment steps

CONCLUSION

Maintaining a broad differential diagnosis for back pain, while following the gold standard of care, enables clinicians to anticipate and address unexpected findings that could significantly influence patient outcomes.

REFERENCES

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