

# 62-year-old male presenting with several week history abdominal pain

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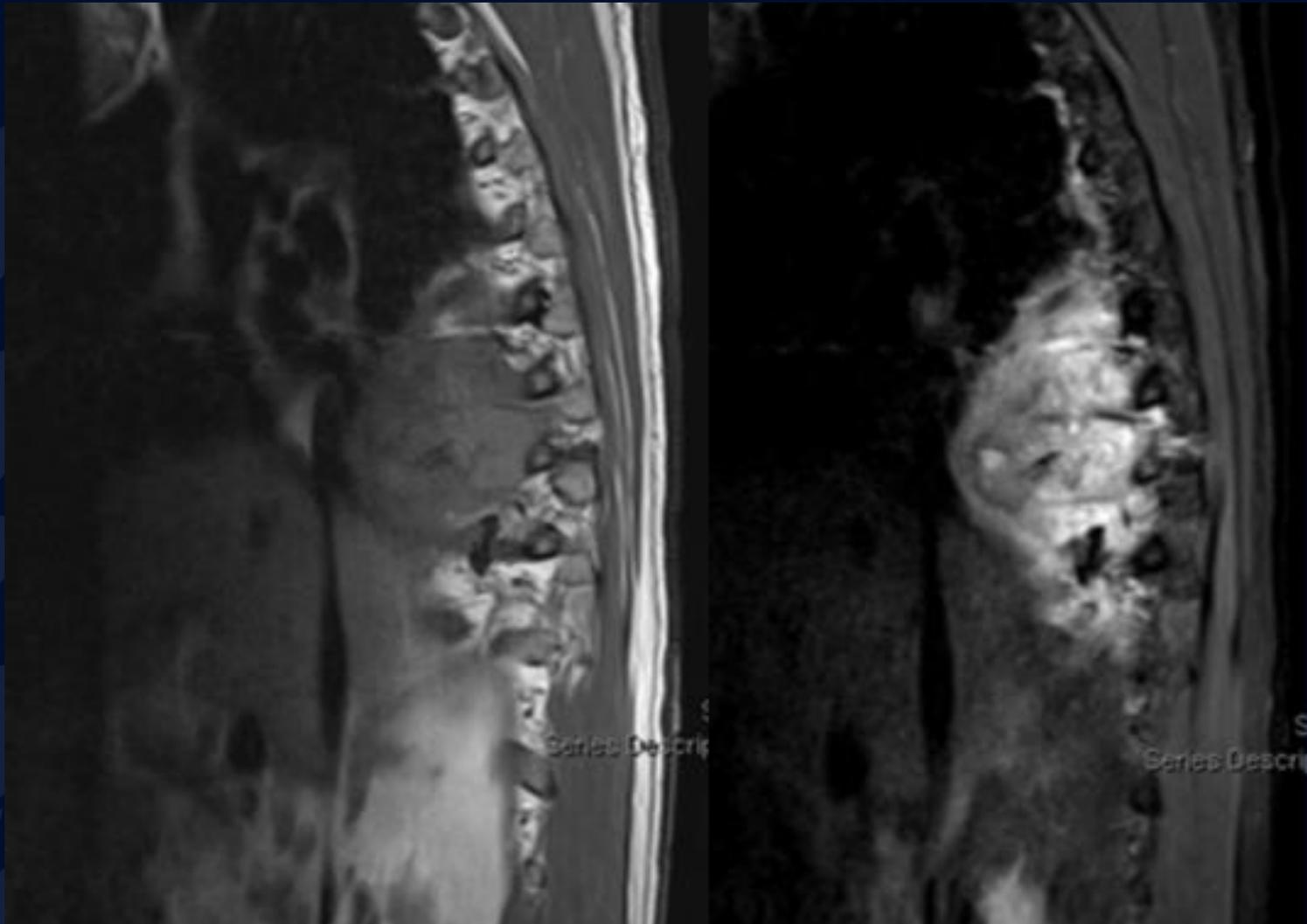
Racquel Helsing, MD

# CT IV Contrast



T1

T2



T2

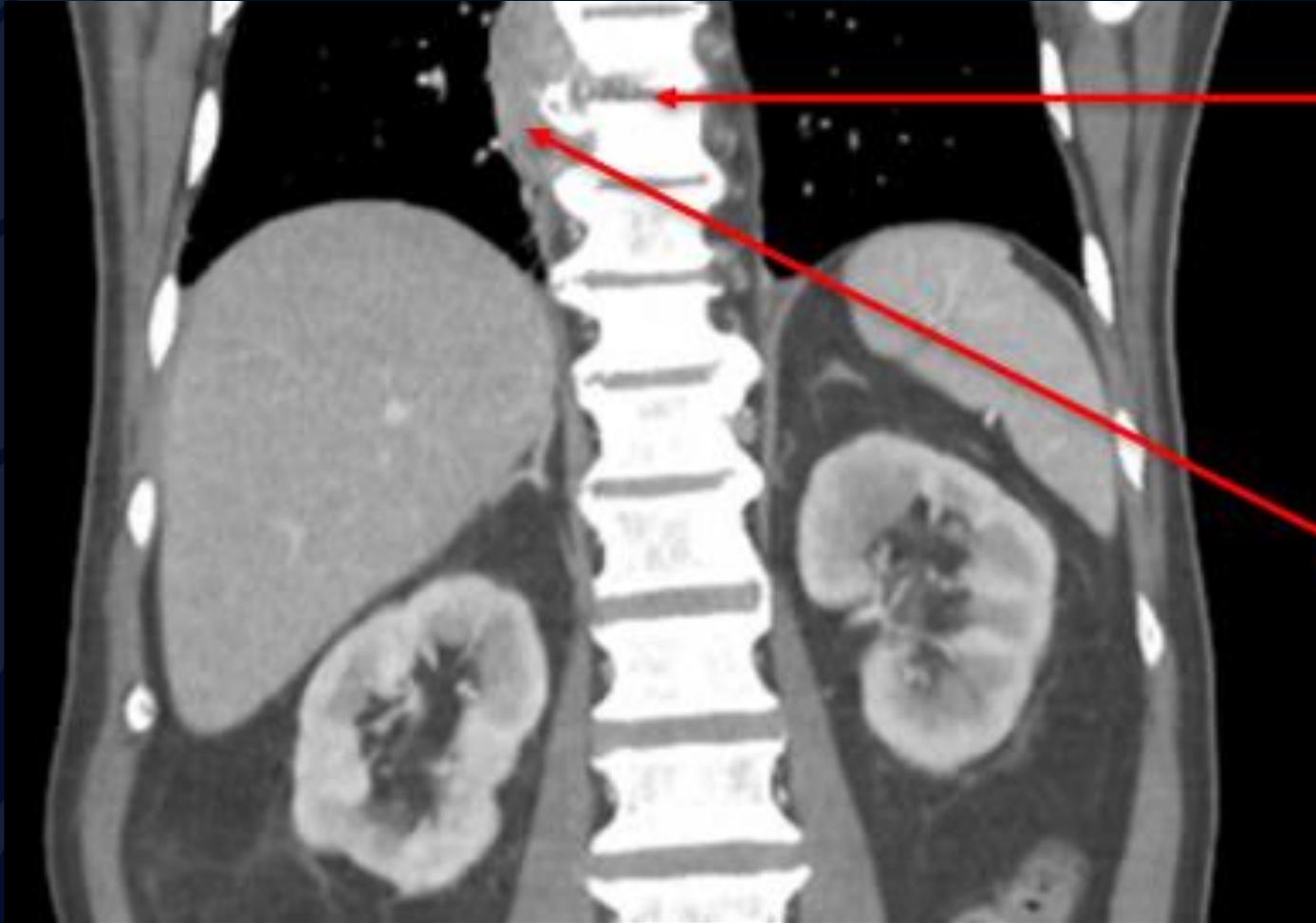




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# Spondylodiscitis with Epidural Abscess

# CT IV Contrast

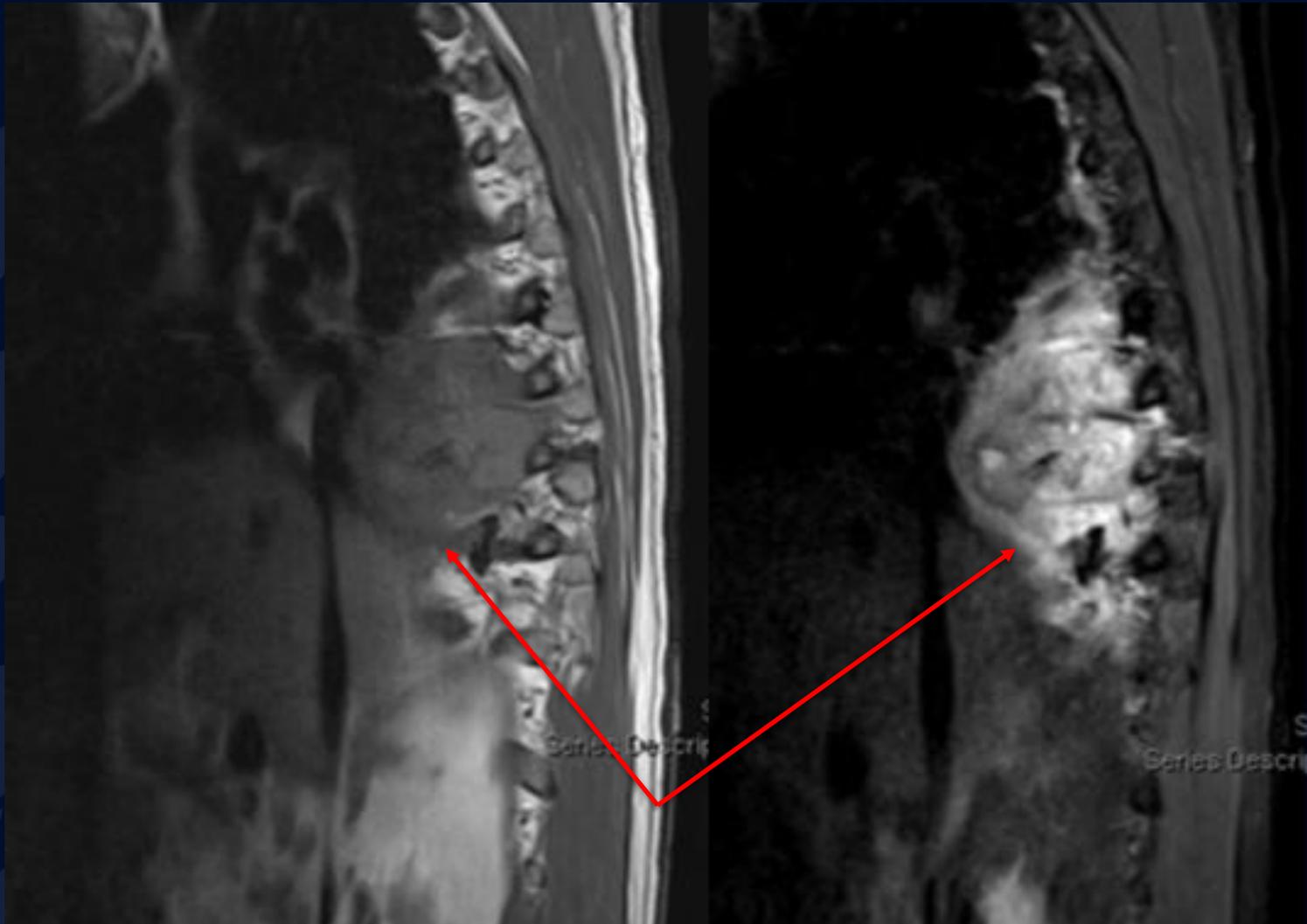


Endplate  
changes

Paraspinal  
mass adjacent  
to T8 and T9  
vertebrae

T1

T2



Heterogenous T1 hypointense,  
T2 hyperintense lesion in the  
thoracic paraspinal tissues

# T2



**A** Increased T2 signal in intervertebral disc, concerning for discitis

Increased T2 signal in vertebral bodies, concerning for osteomyelitis

T2 hyperintense fluid collection

Cord compression due to mass effect from abscess

# Spondylodiscitis with Epidural Abscess

- Typically presents with back pain +/- fever, focal spinal tenderness, elevated ESR, CRP and WBC
- Bimodal age distribution
  - In children, infection is thought to arise from hematogenous seeding to the intervertebral disc itself, which is still vascularized in children
  - In adults, infection is thought to arise from hematogenous seeding of vertebral endplate and spreads to contiguous vertebral bodies. In 15-20% of cases, infection spreads to the epidural space resulting in epidural abscess
- Risk factors include remote infection, instrumentation, IV drug use, immunosuppression, long term steroid use, diabetes
- Often misdiagnosed as degenerative changes

# Imaging Findings

## CT

- Disc space narrowing and irregularity, ill defined vertebral endplates; bone sclerosis in chronic stage
- Intervertebral disc enhancement with contrast, fluid collections, surrounding soft tissue swelling

## MR

- T1: Low signal in disc space and adjacent endplates
- T2: High signal in disc space, adjacent endplates, paravertebral soft tissues, psoas muscle (psoas sign)
- T1+C: Enhancement of endplates, paravertebral soft tissues, periphery of fluid collection (abscess)
- DWI: Hyperintense in acute stage, hypointense in chronic stage.

# References

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