Discitis/Osteomyelitis

A 45-year-old man presented to the emergency department with a 1-week history of low back pain and recent methamphetamine use. MRI showed abnormal fluid signal intensity within the L1-2 intervertebral disc space with endplate erosions (A), abnormal marrow edema (A) and enhancement (B) within the adjacent vertebrae, and abnormal signal and enhancement within paraspinal soft tissues with rim-enhancing psoas abscesses (arrow, C).

Spondylodiscitis is an infection of the intervertebral disc and adjacent vertebral bodies. The most common pathogens are the pyogenic organisms *Staphylococcus aureus* and *Enterobacter* species. Typically, infection spreads hematogenously but may also result from direct inoculation associated with surgery or percutaneous procedures. The most common symptom is back pain; however, symptoms are often nonspecific and variable. Fever is present in >20% of patients. Neurological symptoms are rare and are usually the result of mass effect or nerve root inflammation.

MRI is the preferred imaging modality for diagnosis and is the most sensitive in detecting early disease. Findings include fluid signal within the disc space, irregular erosive endplate changes, and vertebral body marrow edema. The intervertebral disc is usually decreased in height in pyogenic infections and spared in nonpyogenic infections such as *Mycobacterium* or fungi. Paraspinal abscesses result from contiguous spread of infection into the adjacent soft tissues and appear as rim-enhancing fluid collections.

REFERENCES