

**Case Report****Two Cases of Large Spontaneous Paraspinal Abscesses****M. Sami Walid, MD, PhD****Medical Center of Central Georgia, Macon, GA, USA****Email: mswalid@yahoo.com****Abstract**

Paraspinal (iliopsoas) abscesses are rare but not uncommon conditions that may carry significant morbidity and mortality. They may occur after invasive interventions on the spine or spontaneously in persons with debilitated immune systems, especially diabetes. We report two spontaneous-type cases with different presentations, anamnestic profiles and retrieved pathogens.

**Report**

Paraspinal, iliopsoas abscesses are rare but not uncommon conditions that may carry significant risks of morbidity and mortality. They usually occur in persons who undergo invasive interventions on the spine or those with debilitated immune systems due to diabetes, illicit drug abuse or human immunodeficiency virus (1, 3, 6, 8, 11). We report two cases from our experience with different presentations, anamnestic profiles and retrieved pathogens. The first patient, a 30 year-old, African American soldier who just returned from Iraq, a long-term smoker, presented with back pain radiating to both legs, more on the left side. The pain was constant with no alleviating or aggravating factors. The patient said he noticed a decrease in appetite, night sweats and some weight loss lately. On physical exam, he had a slim body habitus with a body mass index of 16. The patient was febrile at 102.5°F. Laboratory evaluation showed WBC 11.5, hemoglobin 8.9, hematocrit 27, MCV 76, platelet count 968,000, serum sodium 133, potassium 4.2, chloride 98, bicarb 30, BUN 5, creatinine 0.7, calcium 8.8, and ESR 100. MRI imaging showed an extensive dorsal epidural abscess extending from L1 to the sacrum markedly compressing the thecal sac and revealing multiloculated irregular enhancement. This was contiguous through the left neural foramen with a large left paraspinal multiloculated mass extending from the dorsal left psoas muscle to involve virtually the entirety of the left posterior paraspinal muscle and a portion of the right medial paraspinal muscle.

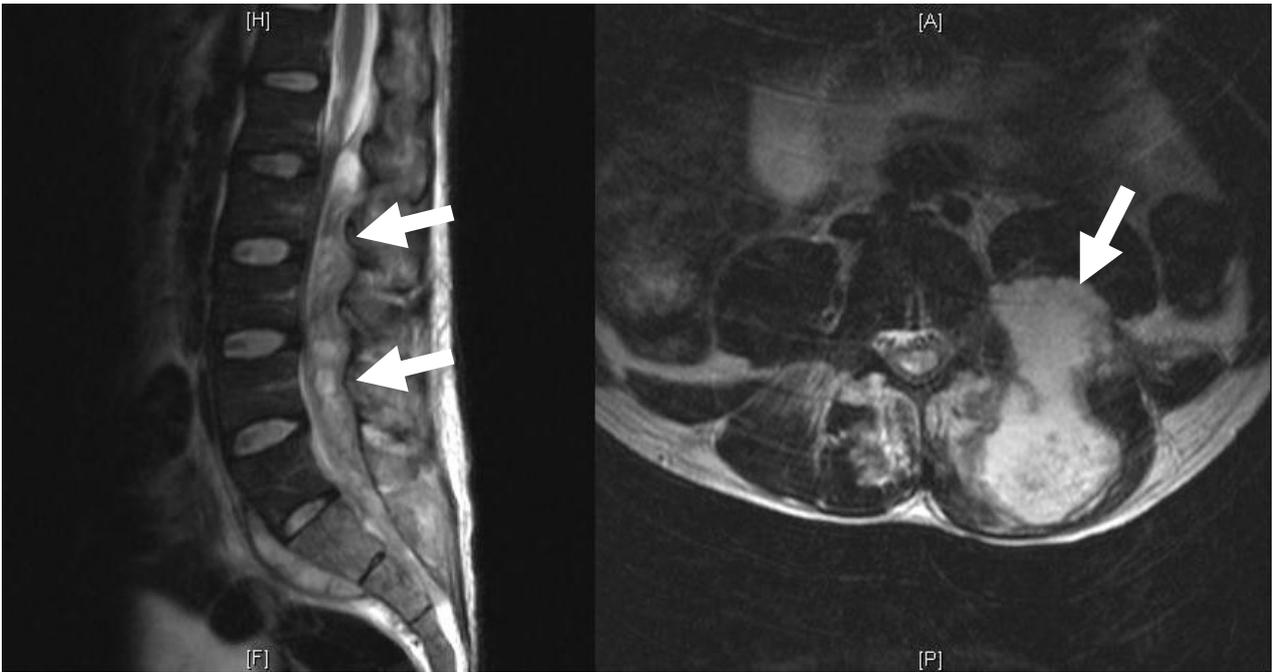
The patient had drainage of lumbar muscular abscess and epidural abscess with bilateral laminectomies from L1 to S4. There was frank pus in a large pocket that went to the psoas muscle on the left and migrated through the neural foramina at each level into the canal filling about 75 to 80% of the spinal canal width. Pathological examination showed caseating granulomatous inflammation but AFB stains were negative. Culture for mycobacterium tuberculosis was

positive. The patient was treated for tuberculosis. Length of stay in hospital was 19 days.

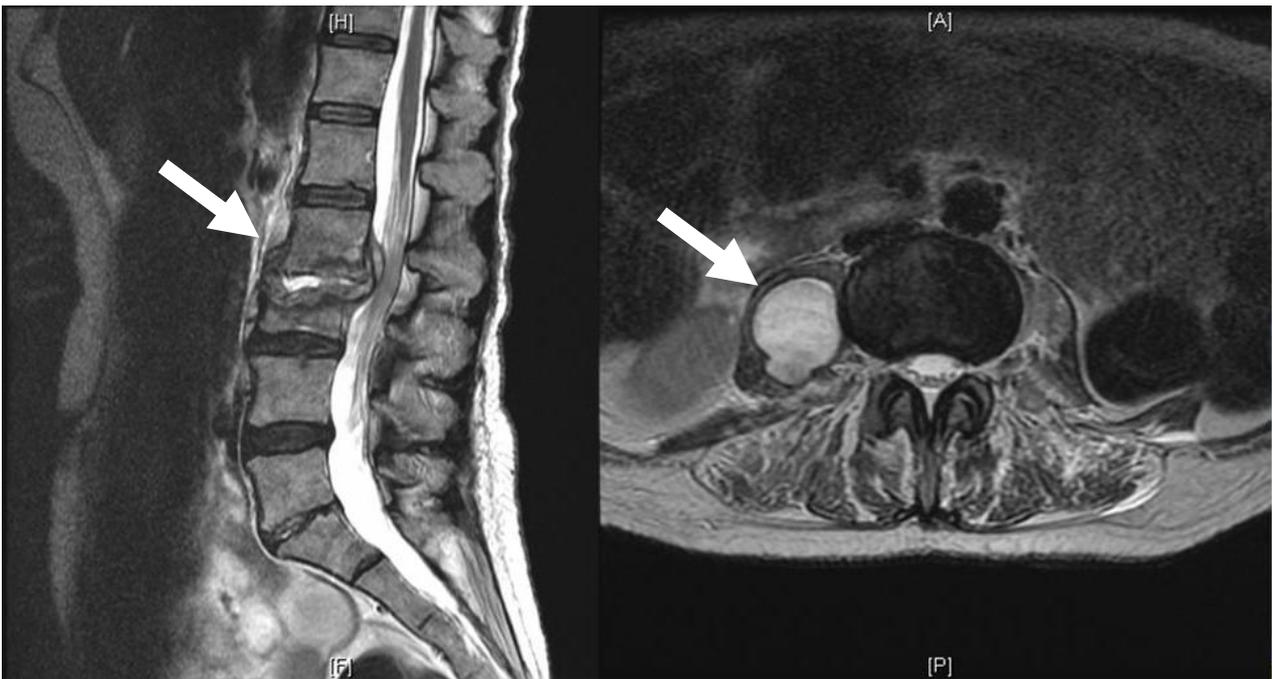
The second case, a 61 year-old, Caucasian female, a long-term smoker, presented with severe back pain that was uncontrollable with her pain medication including morphine. Past medical history included severe rheumatoid arthritis, type 2 diabetes mellitus, hypertension, respiratory insufficiency, decubitus ulcers and gastric feeding tube placement. The patient had previously been on immunosuppressive therapy for her rheumatoid arthritis. Neurological exam was benign with no asymmetry or deficit. Substantial point tenderness was elicited in the lower lumbar area. Labs were as follows: WBC 12, Hg 8.1, platelets 261,000, Glucose 47, Potassium 4.3, BUN 9, creatinine 0.8, and ESR 85. MRI showed severe discitis and osteomyelitis at the L2-L3 level with some destruction of the superior aspect of the L3 vertebra and retropulsion of inflammatory change and/or bone contributing to rather marked spinal stenosis and epidural abscess formation as well. There was also a large right psoas abscess and inflammatory changes in the left psoas muscle.

Abscess Gram stain showed the presence of gram-positive cocci. Blood cultures grew Methicillin-resistant *Staphylococcus aureus* (MRSA). The patient had lumbar draining placed and was treated with antibiotics. Length of stay in hospital was 31 days.

Paraspinal abscesses have been more frequently reported following facet joint injection and epidural analgesia (1-4, 7, 9, 10). Spontaneous paraspinal abscesses are rare and are thought to happen more often in immunocompromised patients and those with chronic debilitating disease, especially diabetes mellitus (5, 9). In these cases, the paraspinal muscle is seeded either hematogenously or by direct extension from an infectious focus in the spine or on the skin. Extension of the abscess into/from the epidural space have been reported before (9) and a concomitant infla-



**Figure 1.** MRI T2 showing a large left paraspinal multiloculated abscess in the dorsal left psoas muscle contiguous with an extensive dorsal epidural abscess extending from L1 to the sacrum.



**Figure 2.** MRI T2 showing severe discitis and osteomyelitis at the L2-L3 level and a large right psoas abscess with inflammatory changes involving the left psoas muscle.

mmation of intervertebral disks can occur (6). The diagnosis is frequently not suspected until magnetic resonance imaging (MRI) is performed. In addition, computed tomography (CT) scan may be needed to rule out osteomyelitis. The take-away message from this double case report is that paraspinal abscesses are not sporadic findings and should be carried in mind when dealing with patients complaining of back pain and having signs of a local infectious process in the

lumbar area without necessarily a history of invasive intervention on the spine.

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