

2016 PA Rheumatology Society Annual Meeting Abstract Submission

Title:

A Pain in the Back

Author/Institutional affiliation:

- 1) Annemarie Schorpion, M.D., Rheumatology Fellow (PGY-5)
Hospital of the University of Pennsylvania, Division of Rheumatology
Michael J. Crescenz VA Medical Center, Philadelphia
- 2) Sally Pullman-Mooar, M.D., Rheumatology Section Chief
Michael J. Crescenz VA Medical Center, Philadelphia

Introduction:

Lumbar facet joint pain is estimated to account for up to 15% of chronic lower back pain (1). Cases of acute inflammatory arthritis affecting the facet joints, referred to here as “facetitis,” are less commonly described. We report a case of acute back pain caused by acute gouty arthropathy of the lumbar facet joints.

Case Description:

A 70-year old man with a known history of osteoarthritis, hypertension, chronic kidney disease and non-crystal proven gout was admitted for fever and severe lower back pain that began 1 week prior to presentation. The pain was constant, 10/10 in severity, and aggravated by movement. Acetaminophen, oxycodone and morphine for the same pain at ED visits earlier that week gave partial relief at best. He also reported pain and swelling of the right wrist that started shortly after the back pain and did not respond to colchicine at home. He denied other constitutional signs, focal neurologic complaints, IV drug use, and trauma.

He appeared acutely ill on exam with T 101, HR 119, and BP 153/92. He was in supine position. Neurologic exam was limited due to pain though he had no neurologic deficits of the lower extremities. Swelling, warmth, and severe tenderness were later noted over the right wrist and dorsum of the hand, right elbow, and left acromioclavicular joint. On laboratory examination, the patient had leukocytosis to 15 800 and anemia (hgb 11.1). Erythrocyte sedimentation rate was 120 mm/hr, and C-reactive protein was 28 mg/dL. A urinalysis was unremarkable. Uric acid on the day of admission was 8.2 mg/dL.

An MRI of the lumbar spine in the emergency room showed expansion of the joint capsule of left L3-L4 and bilateral L4-L5 with abnormal marrow signal at L4-L5 within the facets and associated edema in the perifacet soft tissues, suggestive of multilevel facetitis.

The patient was suspected of having pyogenic arthritis and was started empirically on antibiotics. Blood cultures remained negative. The patient refused joint aspiration until several days into the hospital course when he failed to improve on treatment with antibiotics. Ultrasound-guided aspiration of a hyperechoic “pocket” just proximal to the right wrist yielded thick white tophaceous fluid as confirmed by the presence of many negatively birefringent crystals under polarized light microscopy. Gram stain and culture of the aspirate were negative.

Antibiotics were discontinued and high dose intravenous methylprednisolone (80mg/d) was started for presumed poly-articular gout with axial involvement. The patient had rapid

clinical improvement. Methylprednisolone was changed to an oral 14-day prednisone taper with complete resolution of symptoms.

Discussion:

The prevalence of axial gout is estimated to be up to 35% of patients with established, poorly controlled gout (2). Gout may affect different structures in the spine, and is infrequently reported as a cause of facetitis and SIRS (systemic inflammatory response syndrome) as described here. Our patient had a course notable for several ED visits, empiric antibiotics, consults by multiple medical and surgical specialties, continuous opioids for pain control, adynamic ileus, and sacral skin breakdown. Gout should be considered in all cases of acute back pain in patients with risk factors for, or, a history of gout. This can help in timely diagnosis, appropriate management, and reduce unnecessary treatment and diagnostic studies, as well as lower the significant health care costs associated with gout (3).

References:

1. Cohen, S. et al "Pathogenesis, diagnosis, and treatment of lumbar zygapophysial (facet) joint pain," *Anesthesiology* 2007; 106:591-614.
2. Lumezanu, E. et al "Axial (spinal) gout," *Curr Rheumatol Rep* 2012; 14:161-164.
3. Wertheimer, A. et al "A revised estimate of the burden of illness of gout," *Curr Therapeutic Research* 2013; 75:1-4.