Glenohumeral Hyaluronic Acid Injection

Nelson Ortiz, MD; Jose Manuel-Figueroa, MD; Fidel Chavez, MD; Katelynn Aviles-Wetherell, MD; Raul Rodriguez-Ramos, MD

Differentiating Septic arthritis from acute flare with Ultrasound

INTRO

- Acute pain after hyaluronic acid (HA) injection can mimic septic arthritis, creating a diagnostic dilemma. This case demonstrates how point-of-care ultrasound (POCUS) helped distinguish a post-injection flare from an infectious process.

CASE

- A 71-year-old man with poorly controlled type 2 diabetes, advanced glenohumeral osteoarthritis, and chronic rotator cuff tears underwent bilateral ultrasound-guided HA injections because corticosteroids were deferred. Twelve hours later, he developed severe left shoulder pain with marked limitation of active and passive motion.

RESULTS

- The patient had no fever, erythema, warmth, or swelling. POCUS demonstrated chronic rotator cuff pathology but no glenohumeral effusion, subacromial-subdeltoid bursal fluid, or acute structural abnormality. Given the reassuring clinical and ultrasound findings, he was managed conservatively and improved substantially within 72 hours without antibiotics or further intervention.

DISCUSSION

- POCUS provided rapid bedside assessment that supported a post-viscosupplementation flare rather than septic arthritis and helped avoid immediate invasive intervention. However, ultrasound findings should be interpreted alongside the clinical presentation, with continued monitoring when infection remains a concern.

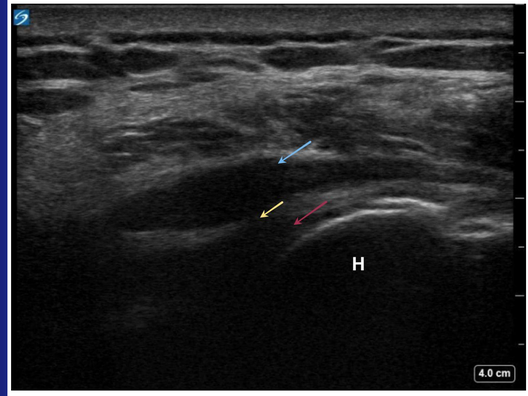


Image 1. Ultrasound of septic arthritis, cited from Perez J, Sorensen S, Rosselli M. BMJ Case Reports 2021.

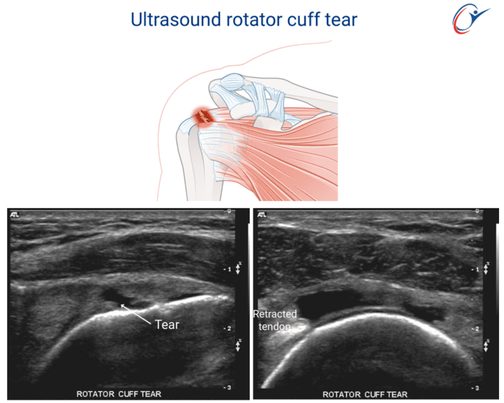


Image 2.Ultrasound/illustrative depiction of chronic rotator cuff tear findings, sourced from ASSIC-Health educational material on rotator cuff tears.