CLINICAL VIGNETTE

Distal Trigger Finger

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Case Presentation

A 72-year-old male presented with 2 months of right first digit pain. His past medical history included hypertension, hyperlipidemia and elevated A1C. Physical examination and hand radiograph were consistent with severe first carpometacarpal (CMC) osteoarthritis. Imaging at the time also demonstrated mild scattered distal interphalangeal osteoarthritis. The patient was prescribed diclofenac 1% gel four times daily and relative rest. Six weeks later, the patient returned for routine follow up of his other chronic medical problems and reported improved but persistent thumb pain, although he was only using the diclofenac gel once per day. In addition to his CMC joint pain, he also complained of interphalangeal joint pain and a locking sensation at this joint after the thumb was flexed. He was referred to Sports Medicine for further evaluation and treatment. During this evaluation the sticking and stiffness were diagnosed as trigger thumb, although not in the typical metacarpophalangeal (MCP) joint.

Background

Stenosing flexor tenosynovitis also known as a "trigger finger" is caused by a stenosis in the A1 pulley sheath and swelling of the flexor tendon. In some cases, a nodule can form on the flexor tendon. The tendon is then unable to glide smoothly through the A1 pulley which, when severe, causes a locking of the finger in flexion, or less commonly extension.[1] It is found in roughly two percent of the population, more common in women in the fifth and sixth decades of life. Other predisposing conditions include diabetes, rheumatoid arthritis and amyloidosis.[2]

Clinical Presentation/Diagnosis

The A1 pulley resides over the metacarpophalangeal (MCP) joint and as such the triggering typically occurs over that joint. The presentation in our patient was unique in that the triggering occurred at the interphalangeal joint only. Diagnosis can be made by physical exam noting frank triggering or catching while moving the affected digit through the full range of motion. A tender nodule in the area of the MCP joint / A1 pulley is also diagnostic. Plain radiographs aregenerally not helpful.[3]

Treatment

As with many orthopedic ailments, initial treatment should consist primarily of conservative measures. Early trials of rest, splinting (6-10 weeks) and short term (1-2 weeks) nonsteroidal anti-inflammatory drugs (NSAIDs) can be sufficient.[4] If the pain and triggering fail to resolve, the next step is a corticosteroid injection directly into the region of the A1 pulley. The patient received an injection of a mixture of 0.5 ml 40mg/ml triamcinolone (total 20mg) and 0.5 ml 1% lidocaine without epinephrine into the region of the A1 pulley which completely resolved his symptoms. He did have recurrence of his symptoms 3 months later which he opted to treat conservatively and has since been lost to follow up. Efficacy studies are mostly small but one study of 366 patients found 45% had persistent relief at 10 years.[5]

Discussion

Our patient presented with an uncommon presentation to a relatively common problem. The triggering or locking sensation can be perceived by the patient to be occurring at the MCP, PIP, and rarely the DIP joint. However, the problem is always at the A1 pulley. The patient should be educated on the risks and benefits of conservative treatment versus trial of a corticosteroid injection. Conservative therapy typically takes longer for resolution of symptoms. If the patient has severe symptoms or if the symptoms interfere with work or activities of daily living, then a corticosteroid injection can be considered. It may take up to 6 weeks for the pain and/or triggering to resolve after a corticosteroid injection. If the pain and/or trigger do not resolve after 6 weeks, then a second injection can be attempted. If symptoms do not resolve after the second injection, referral to an orthopedic hand surgeon should be considered.

REFERENCES

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