An Overlooked Cause of Low Back Pain

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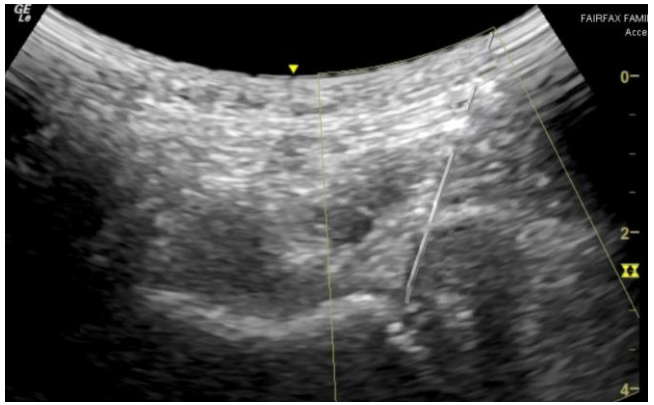
History
- 76 year old male with a past medical history of hyperlipidemia and BPH presents with a 6-month history of left hip pain and left-sided low back pain.
- No inciting event or injury. The pain is constant and located at the superior aspect of the left hip and low back, 5/10 in severity, sharp in character. The pain does not radiate into the leg.
- No aggravating factors or alleviating factors. He states he has tried using Voltaren gel and lidocaine patches but these have not helped the pain.
- He states the pain has been progressively worsening over the past 6 months. Denies swelling, numbness, tingling, weakness, or fevers.

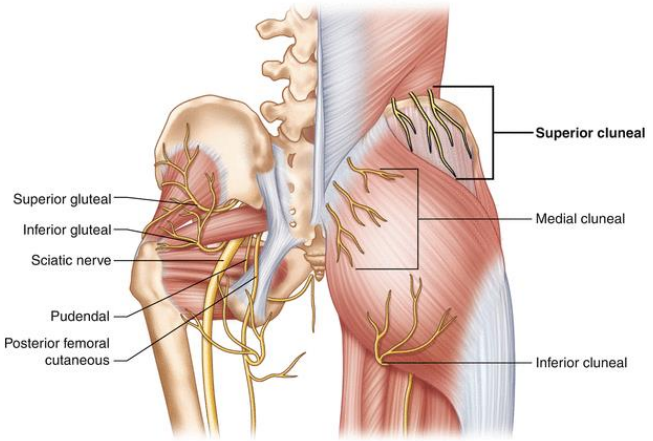
Physical Examination
- Well-appearing male in no acute distress
- Left hip: Tender to palpation of iliac spine and iliac crest. Full active and passive ROM. Tenderness elicited in the left iliac crest with resisted flexion of the left hip. 5/5 strength of left hip flexion, extension, adduction, abduction, internal rotation and external rotation. Negative FADIR, negative FABER.
- No overlying skin changes or apparent edema

Differential Diagnosis:
- Cluneal neuropathy
- Hip osteoarthritis, CAM deformity, Pincer deformity (or mixed)
- Greater trochanteric pain syndrome
- Piriformis syndrome, Sciatic nerve pain syndrome
- Sacroiliac joint dysfunction/SI joint osteoarthritis
- Paraspinal muscle strain

Tests and Results:
- X-ray Left hip with pelvis demonstrated osteopenia and mild osteoarthritis of the right and left hip joints. No fractures.

Treatment:
Point-of-care ultrasound was performed, and patient was found to have tenderness with sonopalpation over the superior cluneal nerve region on the left iliac crest. Under ultrasound guidance, a 25-gauge 1.5-inch needle was used to inject 40mg of Kenalog and 2cc of Lidocaine 1% into the superior cluneal nerve region on the iliac crest.





Final Diagnosis:
- Superior cluneal neuropathy

Follow-up:
The patient reported immediate improvement of his pain after the steroid/lidocaine injection. He reported his pain returned 24 hours after the injection, then completely subsided 1 week after the injection. The patient has done home exercises (low back exercises, hip stretches) and reports that he continues to be pain-free 5 weeks after the injection.

Discussion:
Cluneal neuropathy is a condition that can occur with damage or entrapment of one of the three sets of cluneal nerves: superior cluneal, medial cluneal, and inferior cluneal nerves. Cluneal neuropathy should be considered when patients present with unilateral low back/hip pain and gluteal region pain. Tenderness at the iliac crest rim, or reduced sensation below the iliac crest at the buttocks are findings consistent with cluneal neuropathy. The cluneal nerves are purely sensory nerves providing cutaneous innervation of the buttocks and posterior presacral region.

Cluneal neuropathy is typically a diagnosis of exclusion; alternative diagnoses of low back pain/hip pain should be ruled out first. The treatment of cluneal neuropathy is often multimodal: physical therapy, pharmacotherapy, and minimally invasive procedures. Minimally invasive procedures are increasing in popularity given the focal nature of cluneal neuropathy. When lidocaine/steroid injections are given, patients should be advised of the “window of pain” they may experience in the days between the lidocaine wearing off and the onset of pain relief from the steroid component of the injection.

Resources:

https://www.ncbi.nlm.nih.gov/books/NBK587348
https://jeevishapainclinic.com/cluneal-nerve-entrapment-syndrome.php