

# An Unusual Cause of Proximal Thigh Pain: Focal Dystonia of the Psoas

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## Case Description

- 68-year old female presented for evaluation of right groin pain.
- The pain in her groin radiated superiorly to the lower abdomen and inferiorly to the anteromedial aspect of the proximal thigh and was ongoing for >8 years
- Physicians seen: Neurosurgery, Orthopaedics, Pain Management
- Testing: MRI L-Spine showing degenerative changes and no significant neuroforaminal or spinal stenosis.
- Treatments: PT, multiple epidural steroid injections, facet joint injections, medial branch blocks, and a spinal cord stimulator trial

## Physical Examination

- 4+/5 strength throughout upper and lower extremities
- Biceps, triceps, brachioradialis, patella DTRs 1+
- Right hip flexion revealed very palpable iliopsoas muscle on right more than left and caused pain when resisted and palpated

## Past Medical and Surgical History

- Ehlers-Danlos Syndrome
- Spina Bifida Occulta
- Remote history of anterior cervical decompression and fusion at an unknown level for neck and arm pain

## Treatment

- Diagnostic selective motor nerve block using 1cc of 0.25% bupivacaine to two motor nerves innervating the psoas muscle isolated using a transdermal needle electrode.
  - This immediately produced 95% pain relief and the psoas was less hypertrophic to palpation
- Chemodenervation of the psoas muscle using 200 units of onabotulinumtoxin A.
- EMG activity during the injection revealed increased motor unit potentials and decreased cortical inhibition.



## Follow-Up

- The patient followed up in four weeks and noted >75% reduction in pain without adverse symptoms

## Discussion

- The differential diagnosis for pain should include evaluation for focal dystonia especially when typical causes of pain have been ruled out. <sup>1</sup>
- The use of selective motor nerve blocks can be particularly useful when dystonia is suspected and can be valuable prior to chemodenervation with neurotoxin. <sup>2,3</sup>

## References

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2. Filipetti P and Decq P. Interest of anesthetic blocks for assessment of the spastic patient. A series of 815 motor blocks. *Neurochirurgie.* 2003; 49: 226-38
3. Yelnik AP et al. French clinical guidelines for peripheral motor nerve blocks in a PRM setting. *Annals of Physical and Rehabilitation Medicine.* 2019. 62: 252-64

