Looking beyond the lumbar spine

A challenging case of ischiofemoral impingement

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"Making Waves"
25th Annual Pain Medicine Meeting
November 5-7, 2026 | Tampa, Florida
ASRA PAIN MEDICINE

✚ Case Presentation

● Presentation

A 65-year-old woman presented with more than 10 years of bilateral pain localized to the inferior gluteal folds, worse on the right. Sitting provoked pain within approximately 3 minutes and standing relieved it. She typically needed to stand within 10 minutes, although maximum sitting tolerance was 30 minutes. Pain was absent while walking and sleeping. She denied low back pain, radiation, numbness, or paresthesia. The sitting dependent symptoms interfered with daily activities and travel.

↻ Prior Interventions

Despite years of treatment, cushions, anti-inflammatory medications, topical analgesics, lumbar epidural injections, sacroiliac joint injections, and ischial bursa injections provided minimal or no relief. The lack of response to multiple spine and pelvis directed interventions prompted reconsideration of the pain source. Before targeted injection, she used ibuprofen regularly and frequently interrupted seated activities to stand. Meals, appointments, desk work, and car travel were limited by the accumulation of pain during sitting.

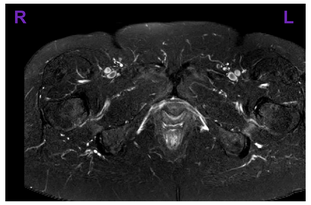
◆ Diagnostic Clues

◆ Lumbar findings did not fit

Lumbar MRI demonstrated a right caudally migrated L1–L2 disc herniation and spondylosis without significant neural compression. Neurosurgical evaluation found no clinical correlation and advised against lumbar surgery. Pelvic MRI showed mild bilateral edema between the ischium and proximal femurs, greater on the left, suggesting a component of IFI. At follow up, gait was normal and bilateral hip provocative tests and straight-leg raises were negative. Tenderness over the ischiofemoral space reproduced her usual pain.

Symptoms were initially worse on the right, although MRI abnormalities were greater on the left. The right side was therefore treated first. This mismatch emphasizes that imaging findings must be interpreted with the history, examination, and symptomatic laterality rather than used alone to select a target. [3,5]

◉ Imaging and Clinical Correlation



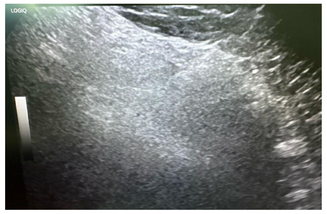
Axial T2 fat-suppressed pelvic MRI

The radiology report noted mild edema between the ischium and proximal femurs bilaterally, left greater than right, suggesting a component of ischiofemoral impingement.

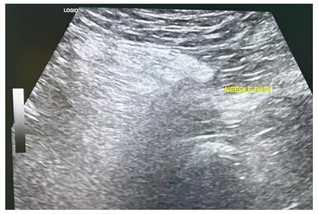
Symptoms were worse on the right.
The right side was injected first.

✚ Procedure Description

The clinical record and MRI were retrospectively reviewed. With the patient prone, ultrasound identified the right quadratus femoris between the ischial tuberosity and lesser trochanter. The sciatic nerve was mapped before an in-plane needle was advanced into the muscle belly. After negative aspiration, 40 mg methylprednisolone acetate and 1 mL of 1% lidocaine were injected. Intramuscular spread was confirmed sonographically. Methylprednisolone use for this indication was off label.



RIGHT: needle-path view



LEFT: labeled needle path

≡ Discussion

Diagnostic context: IFI causes posterior hip pain through quadratus femoris irritation between the ischium and proximal femur. Overlap with lumbar and sacroiliac disorders can delay recognition. MRI edema and narrowing support diagnosis alongside symptoms and examination. [1,3,5]

Injection evidence: Seven injected patients in a retrospective study had greater two week pain reduction than conservative controls. The small sample and short follow up limit conclusions about durability. [2]

Case interpretation: Early right sided relief, longer sitting tolerance, and reduced analgesic use supported benefit. Persistent sitting limitations at 8–9 weeks highlight the distinction between pain relief and functional recovery.

Limitations: Self reported outcomes, bilateral treatment, one patient, and brief follow up limit generalizability. Published evidence predominantly comprises small series and case reports. [6]

▥ Results / Treatment Response

MEASURE	BEFORE	AFTER
Right sided pain	5/10	0/10*
Pain onset while sitting	~3 min	~60 min
Typical time until standing	~10 min	90 min seated
Maximum sitting duration	30 min	90 min
Ibuprofen use	Every 8 h	None for several days up to 8 weeks
Left sided pain	5/10	3/10
Sitting-related activities	Pain limited sitting	Meals, appointments, and car travel possible

*Right pain was 0/10 at 30 minutes and at 3–5 days. Early sitting gains were not maintained at the nine-week follow-up. No early complications occurred.

◷ 8–9 Week Follow-Up

At 8–9 weeks after bilateral injections, she reported ~50% overall improvement and greater relief than prior interventions. Ibuprofen use fell from 12 to 0–8 tablets/day, with several days requiring none. Left sided pain and burning near the gluteal crease remained more prominent than the right. Pain free days were few but increased in frequency. Long drives still provoked pain, and prolonged sitting had minimally improved. The initial right injection was more effective than the later left injection.

✓ Conclusion

Consider IFI when chronic buttock pain lacks neurologic features and remains refractory to lumbar, sacroiliac, and ischial bursa interventions. This patient experienced complete early right sided relief, improved sitting tolerance, and reduced ibuprofen use after targeted injection. At 8–9 weeks after bilateral treatment, overall benefit was partial and prolonged sitting remained limited. Clinical correlation can help identify an extra-spinal source despite incidental lumbar findings. Longitudinal follow up should track pain, medication use, and function separately.

≡ References

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2. Backer MW, et al. Correlation of ultrasound-guided corticosteroid injection of the quadratus femoris with MRI findings of ischiofemoral impingement. AJR. 2014;203:589–593.
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4. Wilson MD, Keene JS. Treatment of ischiofemoral impingement: Results of diagnostic injections and arthroscopic resection of the lesser trochanter. J Hip Preserv Surg. 2016;3:146–153.
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6. Nakano N, Shoman H, Khanduja V. Treatment strategies for ischiofemoral impingement: a systematic review. Knee Surg Sports Traumatol Arthrosc. 2020;28:2772–2787.

Ethics: Consent documented. Deidentified case report exempt from IRB review per ECU UMCIRB guidance. Methylprednisolone acetate use was off label.