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Disclosures

• The authors have no pertinent disclosures
Introduction

• Vigilance must be maintained for extra-spinal etiologies of sciatica

• Piriformis syndrome
  – Compression of the sciatic nerve by the piriformis muscle
  – Rare, controversial etiology of intractable sciatica
    • Pathophysiology: muscle trauma; overuse hypertrophy; aberrant course of sciatic nerve.
    • Symptoms: dull buttock pain; sciatica, restricted hip ROM; symptoms worsening with prolonged sitting, walking, and activity.

• Ganglion cysts commonly found near joints and tendons
  – Rarely identified in association with hip joint or piriformis muscle
  – Rarely associated with neurologic symptoms but
Methods

• Retrospective Case Review
• PubMed Literature Review
  – Search Terms: “Piriformis Ganglion”, “Sciatica”
  – 3 case reports of refractory sciatica associated with piriformis ganglion cyst
  – 1 case report of transient sciatica associated with ganglion cyst.
Clinical Presentation

• 41yo female c/o worsening RLQ abdominal and right low back pain of several years duration
  – Radiation to right buttock and down right lower extremity to foreleg; some paresthesia noted
    • Pain aggravated by movement
  – No weakness, incontinence of bowel or bladder

• PMH/PSH: Migraines; Seizures as child; prior D&C

• Examination discloses reduced ROM right hip; tenderness at posterior aspect of right trochanter; +SLR on right
  – 5/5 strength and symmetric, 2+ reflexes, no abdominal guarding or tenderness
Diagnostic Imaging

- MRI L/S Negative
- CT abdomen demonstrates 3.2x2.7cm lesion posterior to proximal right femur
- MRI R hip: 3.3cm T1-hypointense, T2-hyperintense, avidly and homogeneously enhancing mass along lateral margin of sciatic nerve concerning for cystic peripheral nerve sheath tumor
Operative Intervention

- **Standard Kocher-Langenbeck posterior approach**
  - Gluteus maximus split bluntly, insertional pin transversely incised exposing tumor
  - Sciatic nerve exposed emerging from sciatic notch to level of quadratus femoris muscle
Results

• Firm cystic, thick-walled mass overlying the sciatic nerve and emerging from beneath the piriformis muscle
  – Origin traced to piriformis muscle above, no infiltration of sciatic nerve
  – Resected en bloc with microsurgical technique and intraoperative neurostimulation with no evidence of involved neural tissue

• Path: Benign cyst lined by fibrous and myxoid tissue, consistent with synovial (ganglion) cyst
Diagnosis & Conclusions

• Refractory piriformis syndrome due to compressive piriformis ganglion cyst
  – 4th known case in indexed literature

1. Piriformis ganglion cyst is an exceedingly rare etiology of piriformis syndrome and refractory sciatica

2. Piriformis ganglion cyst can mimic the radiographic appearance of a cystic peripheral nerve sheath tumor

3. In this case, microsurgical resection resulted in successful resolution of the patient’s piriformis syndrome
References


