



Large Retroperitoneal Schwannoma Abutting the Psoas Muscle - A Case Report

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Introduction

- Schwannomas are benign nerve sheath tumors. They are infrequently retroperitoneal, composing only approximately 3% of all schwannomas.^{1,2}
- Retroperitoneal tumors often go undetected and can grow quite large.³

Case Description

- **Pertinent History:**
 - A 72-year-old woman with a history of breast cancer and germline ATM mutation presented with severe, burning right anteromedial thigh pain. The pain began approximately 4 years ago, but recently worsened.
 - A prior PET scan revealed a retroperitoneal nerve sheath tumor near the right psoas and a subsequent biopsy identified a benign schwannoma.
- **Exam:**
 - There was significant muscle guarding with co-contraction of lumbo-pelvic muscles when ranging her right hip. The motor and sensory exam of her lower extremities was otherwise normal.
- **Work up:**
 - Lumbar MRI re-demonstrated a punctate annular tear of the posterior L4-5 disc, bilateral L5-S1 foraminal narrowing abutting the L5 nerve roots and the schwannoma lateral to the right psoas.
 - Repeat PET scan demonstrated interval increase in FDG avidity of the right retroperitoneal nerve sheath tumor with enlargement measuring 4.5 x 3.6 cm in greatest dimensions (**Image 1**), previously 3.8 x 2.8 cm.
 - MRI neurogram showed the 5.3 cm schwannoma lateral to the right psoas muscle arising from the right L3 and L4 nerves (**Image 2**).
 - NCV/EMG of the lower extremities was normal.
 - Medial branch blocks and L2/L3 epidural steroid injections were attempted without relief.
- **Conclusion:**
 - The neurosurgical team advised against resection due to difficulty pinpointing the precise cause of pain and the potential for functional decline if the right psoas schwannoma were resected.
 - Pharmacologic optimization with gabapentin 800mg TID was advised.

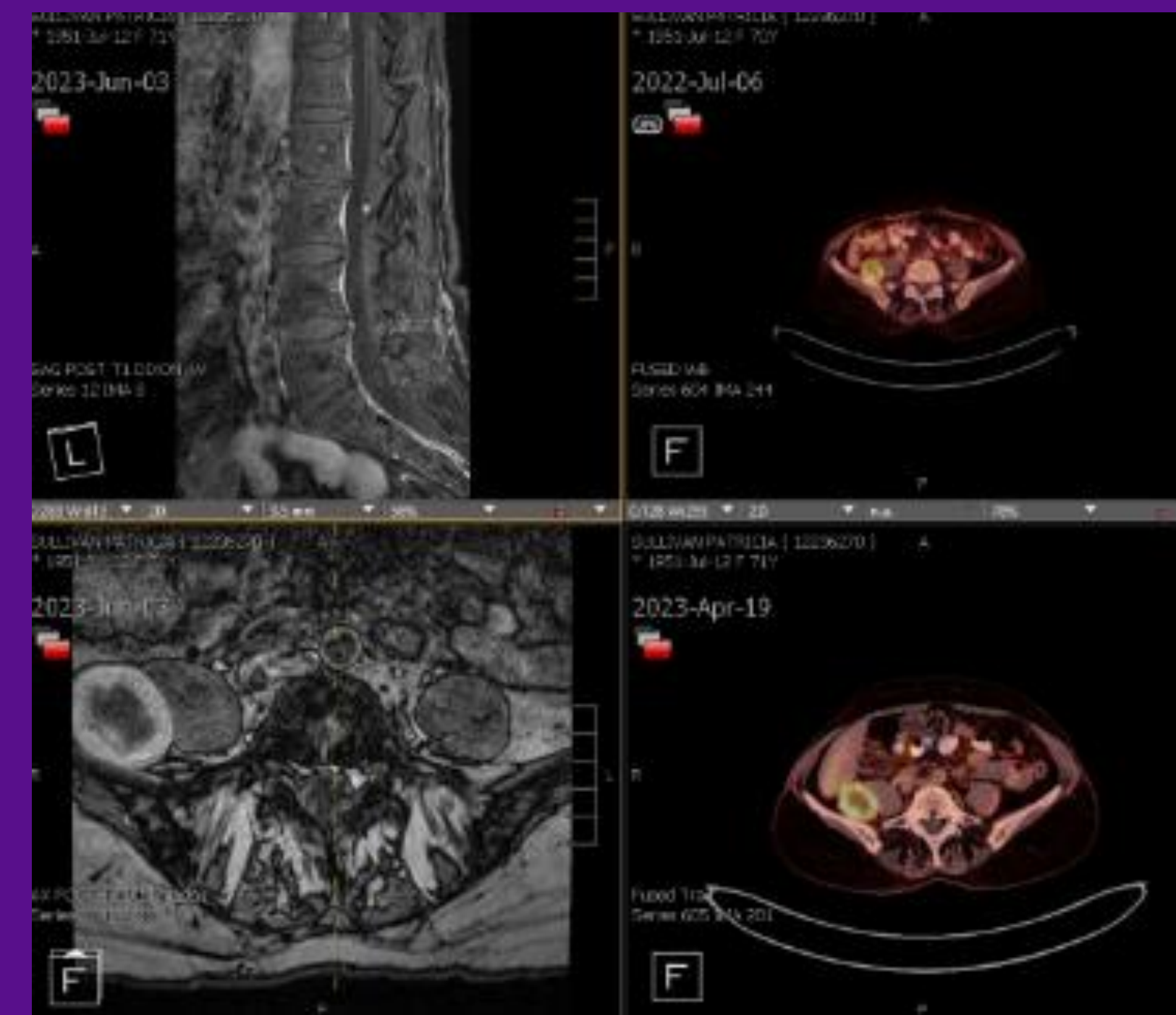


Image 1: PET scan demonstrating a 'hot' right retroperitoneal nerve sheath tumor

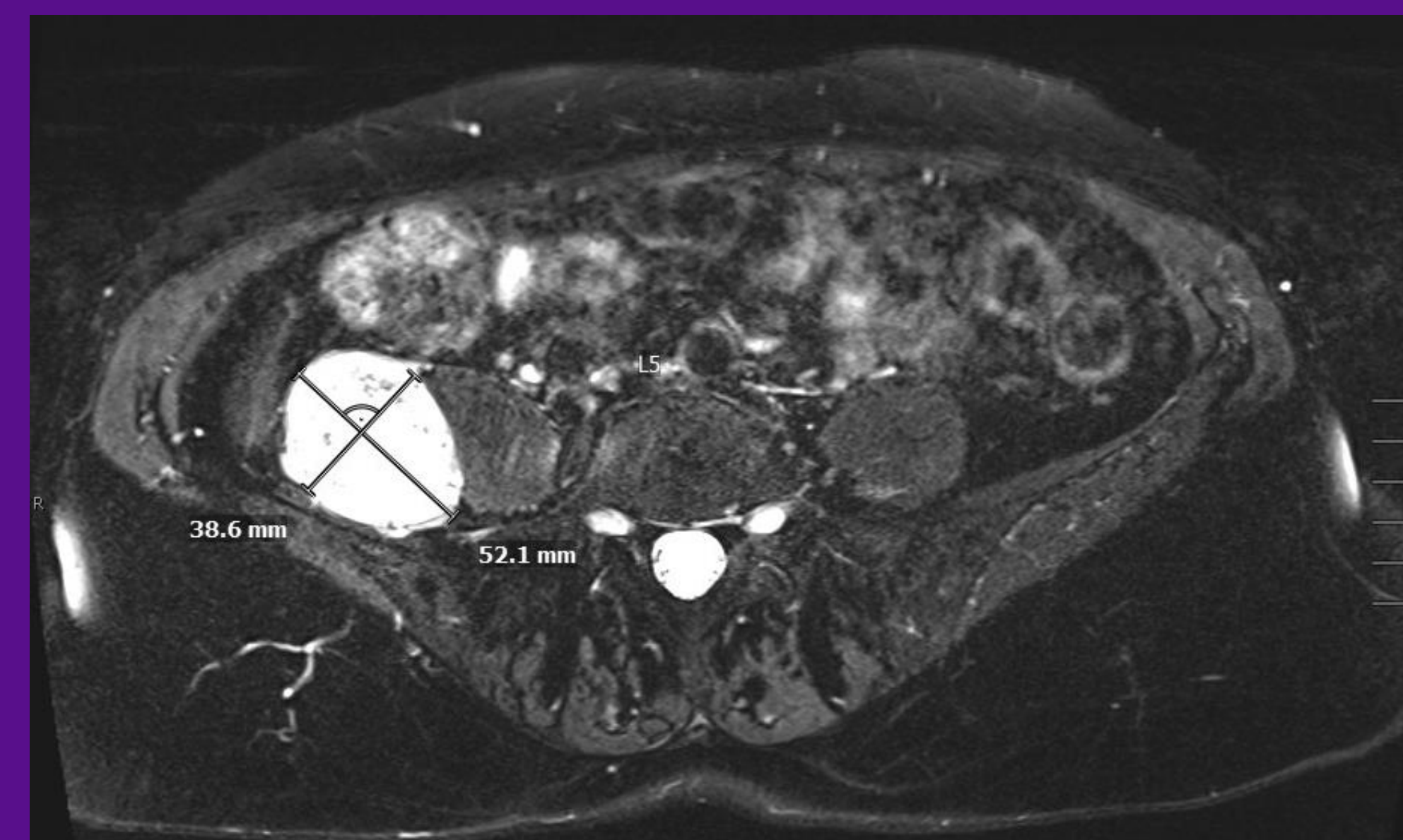


Image 2: MRI neurogram of the lumbo-sacral plexus demonstrating a 5.3 cm schwannoma lateral to the right psoas muscle arising from the right L3 and L4 nerves

Discussion

- In this case, a patient with a large schwannoma arising from the L3 and L4 nerve sheaths had grown laterally to the right psoas muscle resulting in thigh pain.
- Cases of nerve sheath tumors are frequently hard to manage and often unresponsive to central interventions, especially when abutting peripheral structures.
- While not attempted in this care, there may be a role for perineural steroid injections, as indicated by prior case reports.⁴
- After a multidisciplinary approach, it was ultimately decided to proceed with pharmacologic management of pain and symptoms.
- This case demonstrates the value of pain medicine physicians as part of the multidisciplinary teams when treating complex pain cases resulting from tumors.

References

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