

Case Presentation: 77 Year Old with 3 Weeks of Abdominal Pain

Francine Zeng, MS3
Michael Baldwin, MD

History of Present Illness

77 y.o. F presents to her primary care physician with 3 weeks of progressive, nonspecific LLQ abdominal pain radiating down her anterior thighs and legs.

She denies associated trauma, fever, nausea, vomiting, melena, or hematochezia but reports new-onset constipation within the same timeframe.

The pain is constant but further exacerbated by position changes and walking. She has not seen any other professionals or tried anything for the pain yet.

Additional History

PMH: choledocholithiasis, diverticulitis, IBS-diarrhea predominant, anxiety, and chronic lower back pain.

PSH: cholecystectomy, tubal ligation, hysterectomy

Her most recent colonoscopy in 2017 was normal and she has no history of colon cancer or polyps.

She sees a chiropractor for her back pain. Recent radiographs of lumbar spine revealed mild degenerative changes only.

The patient is a retired teacher and lives locally with her husband. She is a former smoker (quit >30 years ago) and denies any alcohol or illicit drug use.

Examination and Initial Work-Up

127/73 94 97.9F BMI: 26.1

Patient is well appearing and does not appear in distress. Physical exam significant for tenderness to palpation in LLQ of abdomen without guarding, rigidity, or rebound. No masses, inguinal, or femoral hernias palpated.

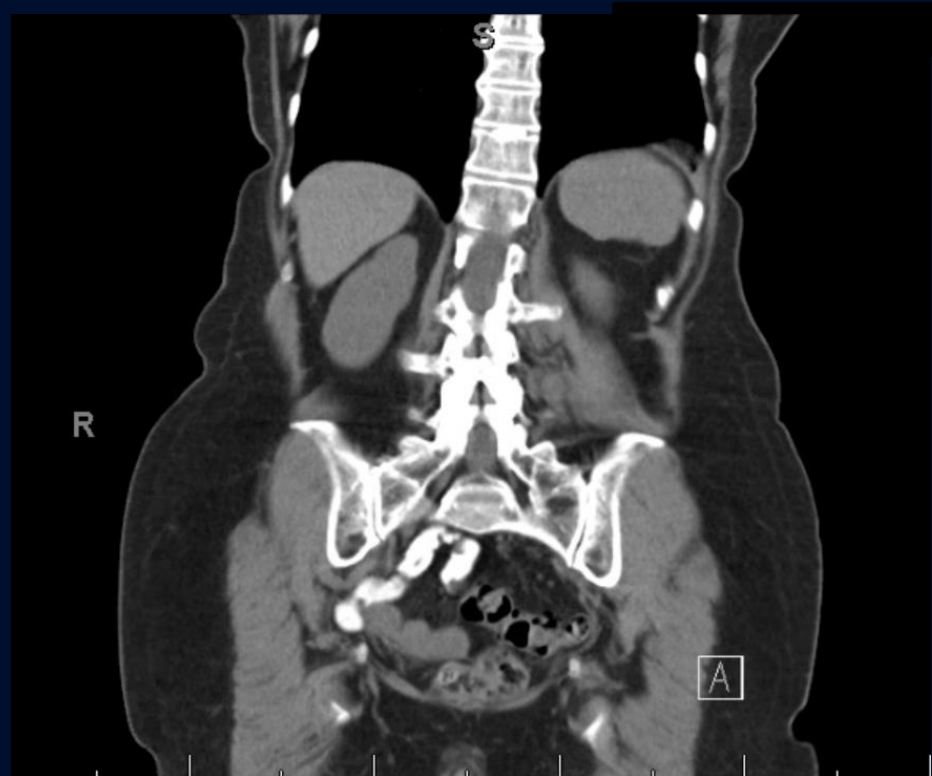
Vertebral spine non-tender to palpation without any step-offs. Straight leg raise positive bilaterally. Neurology exam within normal limits.

Examination and Initial Work-Up

CBC, Chem-7, AST/ALT were ordered and returned normal.

Due to patient's history and vague presenting symptoms, a CT of the abdomen and pelvis with oral contrast (patient did not want Intravenous contrast) and MRI of the lumbar spine were ordered.

CT Abdomen / Pelvis with Oral Contrast



Non-Contrast CT

Lack of acute intra-abdominal process!

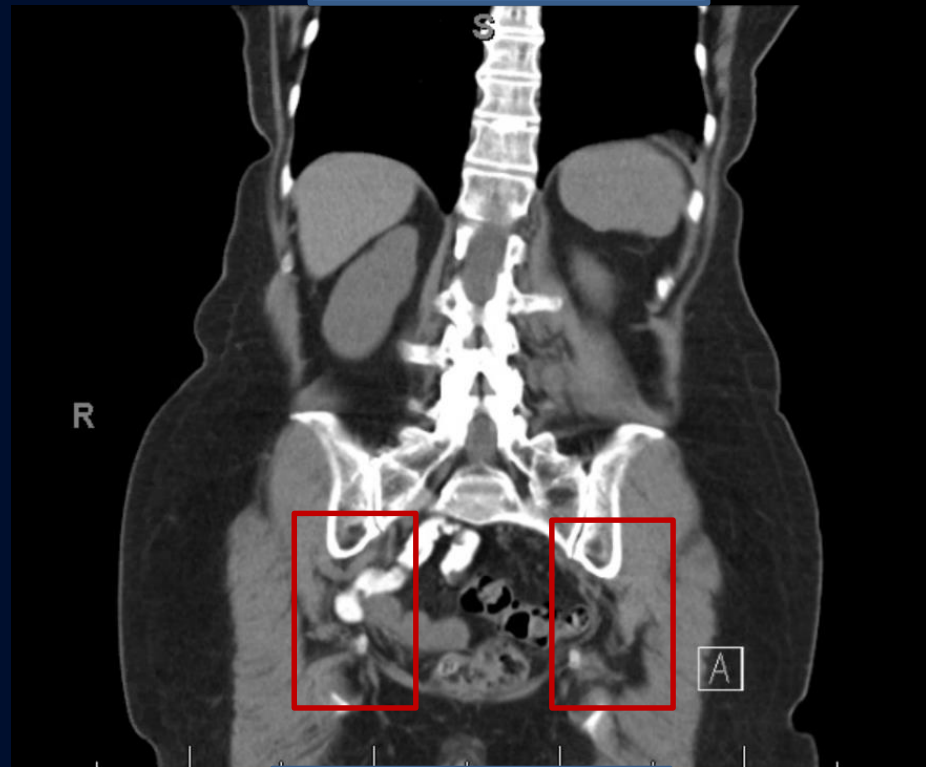
Diffuse diverticula of the large colon without pericolic fat stranding

No evidence of pneumoperitoneum or fluid



Small bowel protruding through right sciatic notch

Colon protruding through left sciatic notch

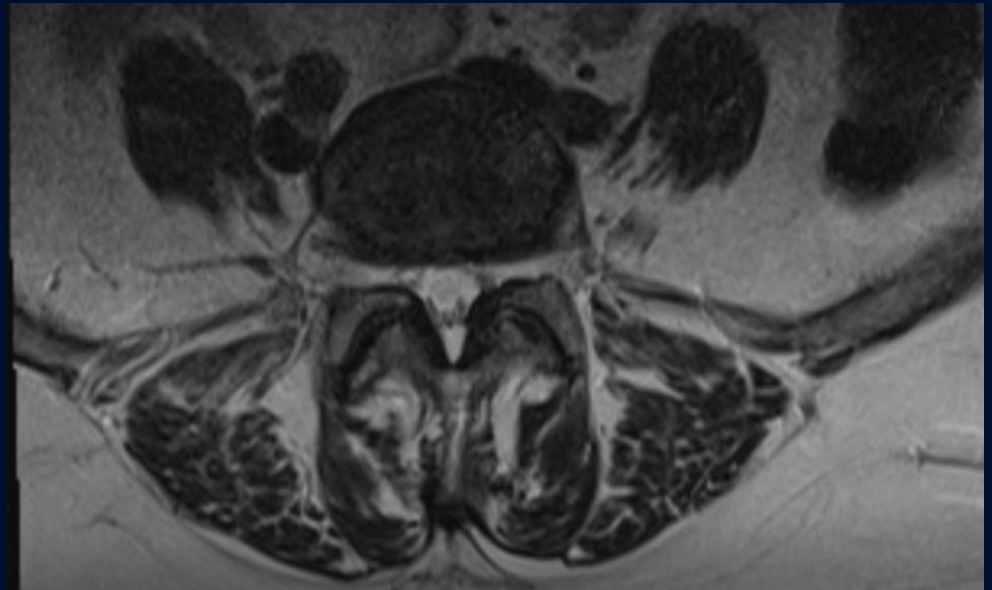


Herniated bowel on coronal view

MRI of Lumbar Spine without Intravenous Contrast



L5-S1 Level

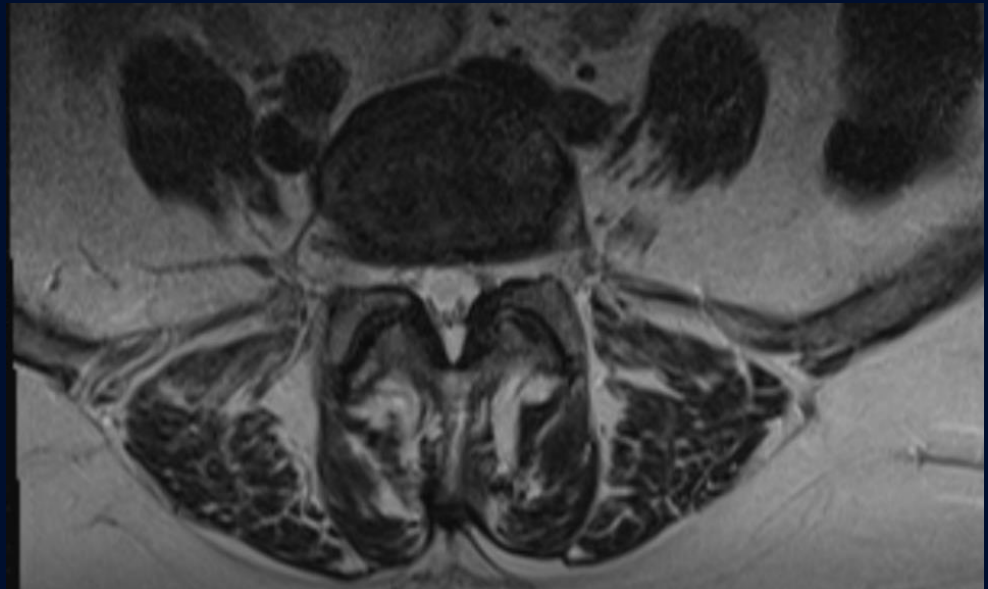


MRI of Lumbar Spine

Diffuse mild spondylosis of vertebral bodies and discs



L5/S1: Mild central canal stenosis but no nerve root impingement



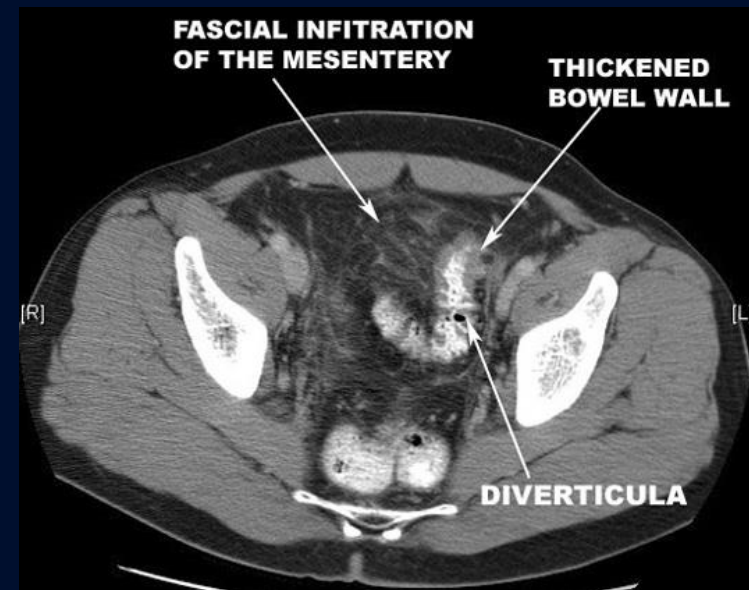
Small disc herniation at L3/L4

Small disc herniation at L5/S1

Differential Diagnosis

Diverticulitis

- **Supporting:** History of diverticulitis, diverticulosis on imaging, LLQ pain, patient's age
- **Against:** No pericolic fat stranding on imaging indicating inflammation, afebrile, “feels different from previous bout of diverticulitis”, lack of leukocytosis



Differential Diagnosis

Lumbar Disc Herniation/Spinal Stenosis

- **Supporting:** History of chronic lower back pain and degenerative disc disease on previous radiograph. Patient's age and radicular symptoms down anterior thighs and legs. Positive straight leg raise on exam.
- **Against:** Would not explain LLQ pain unless two different etiologies. MRI of lumbar spine did not show signs of spinal cord compression or nerve root impingement.

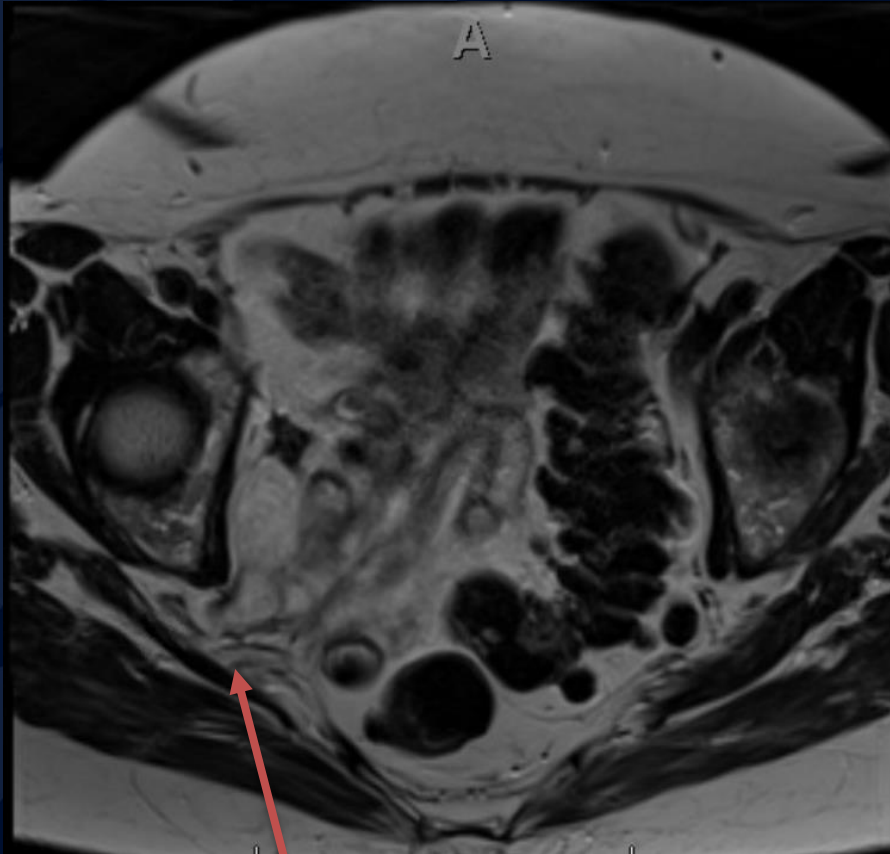


Differential Diagnosis

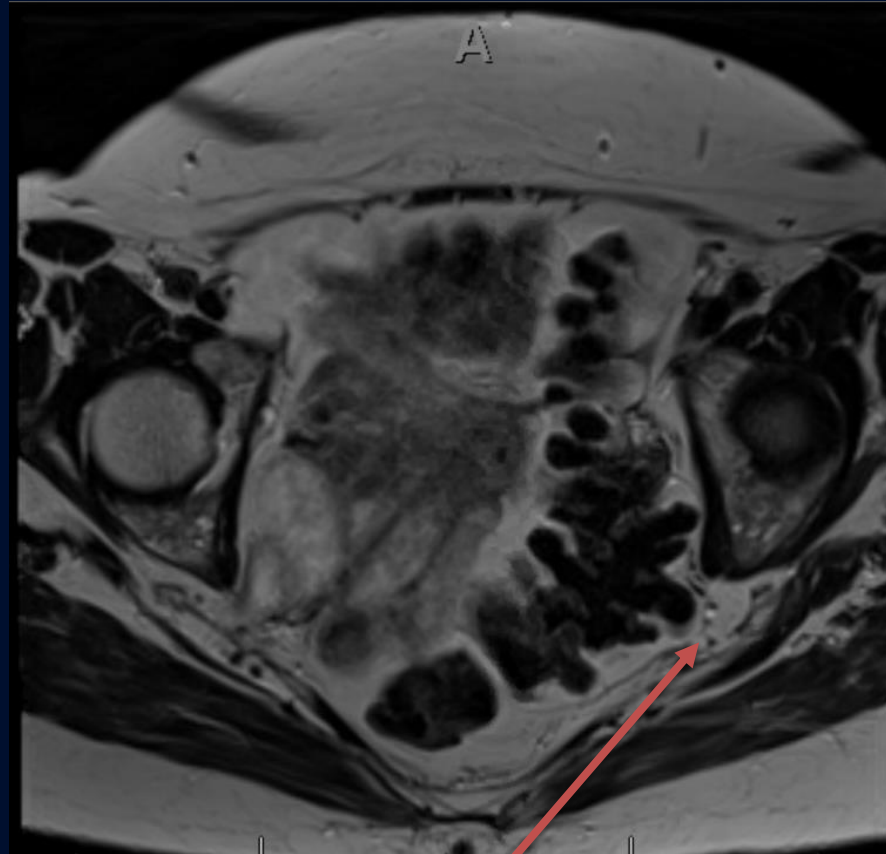
Incarcerated Hernia

- **Supporting:** Patient's age, abdominal pain, radiation to anterior thigh, new-onset constipation, sections of small bowel and colon protruding into right and left sciatic notches respectively on imaging
- **Against:** Lack of palpable inguinal or femoral hernias on physical exam, rarity of sciatic hernias

T2-Weight MRI of Abdomen and Pelvis



Right-sided small bowel herniation
impinging sciatic nerve



Left-sided colonic herniation
impinging sciatic nerve

Diagnosis?



Bilateral Sciatic Notch Hernias

Sciatic Notch Hernias

- Sciatic notch hernias are considered the rarest type of pelvic floor hernias and an uncommon cause of sciatica
- Defined as protrusion of the peritoneal sac and its contents through either the greater or lesser sciatic foramen
- Can present with nonspecific abdominopelvic pain, intestinal obstruction, gluteal abscess formation, or as an asymptomatic mass in the sciatic notch area
- Exact cause is unknown but risk of development is increased in older, multiparous women
- Clinical symptoms can vary depending on the structure entrapped in the sciatic notch with cases including ovaries, ureters, bladder, and small and large intestines
- Mainstay treatment: operative repair due to high-risk of incarceration and obstruction

Sciatic Notch Hernias Diagnosis

- Diagnosis requires confirmation on imaging with ultrasound and CT scans being modalities of choice
- MRI can then be used to evaluate the integrity of the sciatic nerve and visualize any diffusion changes secondary to chronic compression

Conclusion

Following diagnosis, the patient was referred to a general surgeon. Of note, having the patient lie on her stomach and cough elicited bilateral palpable masses in the sciatic notches.

She underwent bilateral robotic sciatic notch hernia repairs and her abdominal pain and sciatica resolved.



Sources

- 1. Losanoff, J., Basson, M., Gruber, S., & Weaver, D. (2010). Sciatic hernias: a comprehensive review of the world literature (1900-2008). *The American Journal of Surgery* , 52-59.
- 2. Kostov, D., & Kostov, V. (2017). A Giant Sciatic Hernia. *The Eurasian Journal of Medicine*, 222-223.
- 3. Chitranjan, Kandpak, H., & Madhusudhan, K. S. (2010). Sciatic hernia causing sciatica: MRI and MR neurography showing entrapment of sciatic nerve. *British Journal of Radiology*, 65-66.
- 4. Labib, P., & Malik, S. (2013). Choice of imaging modality in the diagnosis of sciatic hernia. *Journal of Surgical Case Reports*.
- 5. Chen, Y.-C. (2015). Sciatic hernia with incarcerated urinary bladder: Laparoscopic transabdominal extraperitoneal repair with a mesh plug. *Formosan Journal of Surgery* , 76-79.