

A Rare Case of a Right Sided Nutcracker Syndrome

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INTRODUCTION

A well appearing 25-year-old caucasian male presents with episodic right scrotal fullness, RLQ pain radiating towards his groin, exacerbated by increased intra-abdominal pressure.

INITIAL PRESENTATION

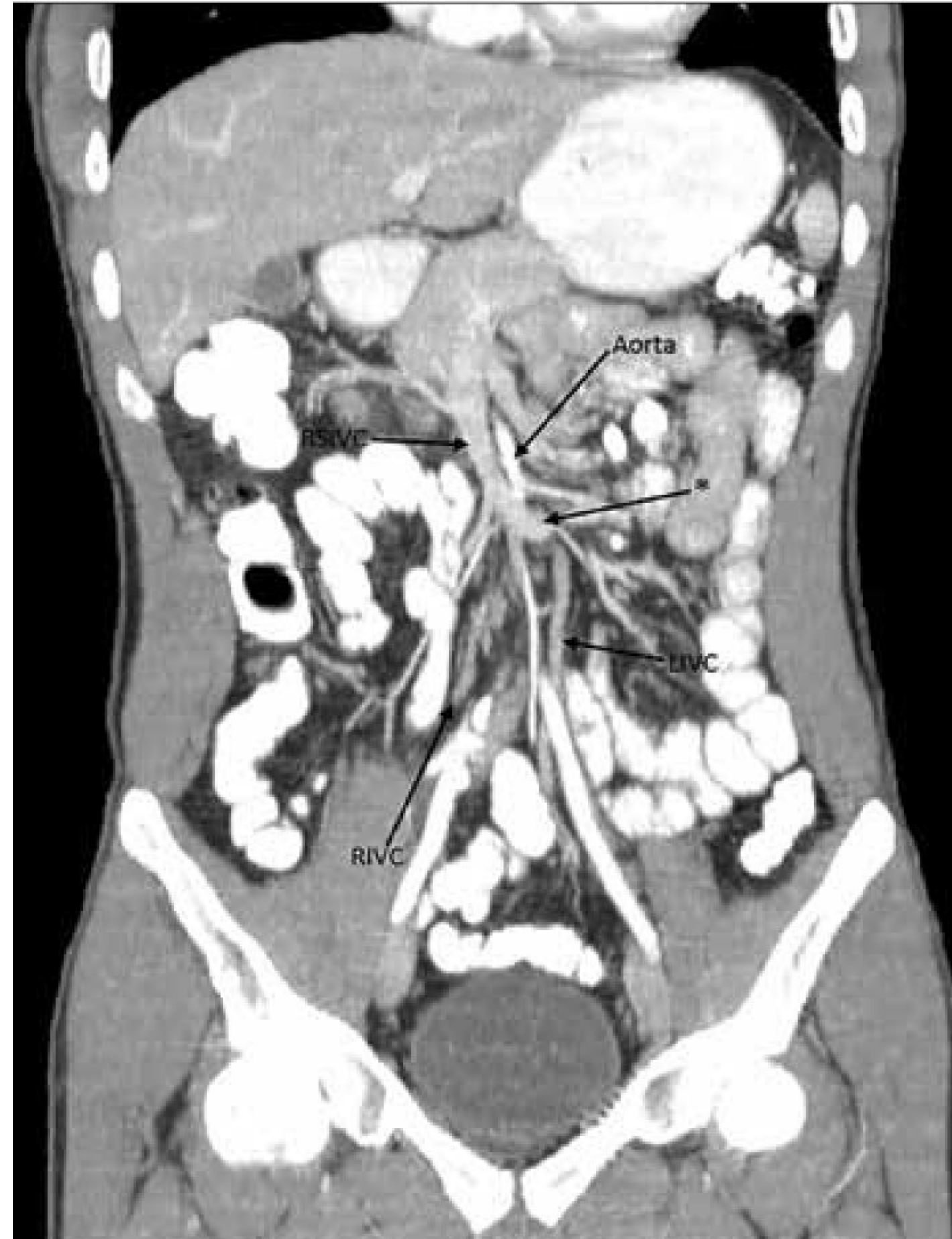
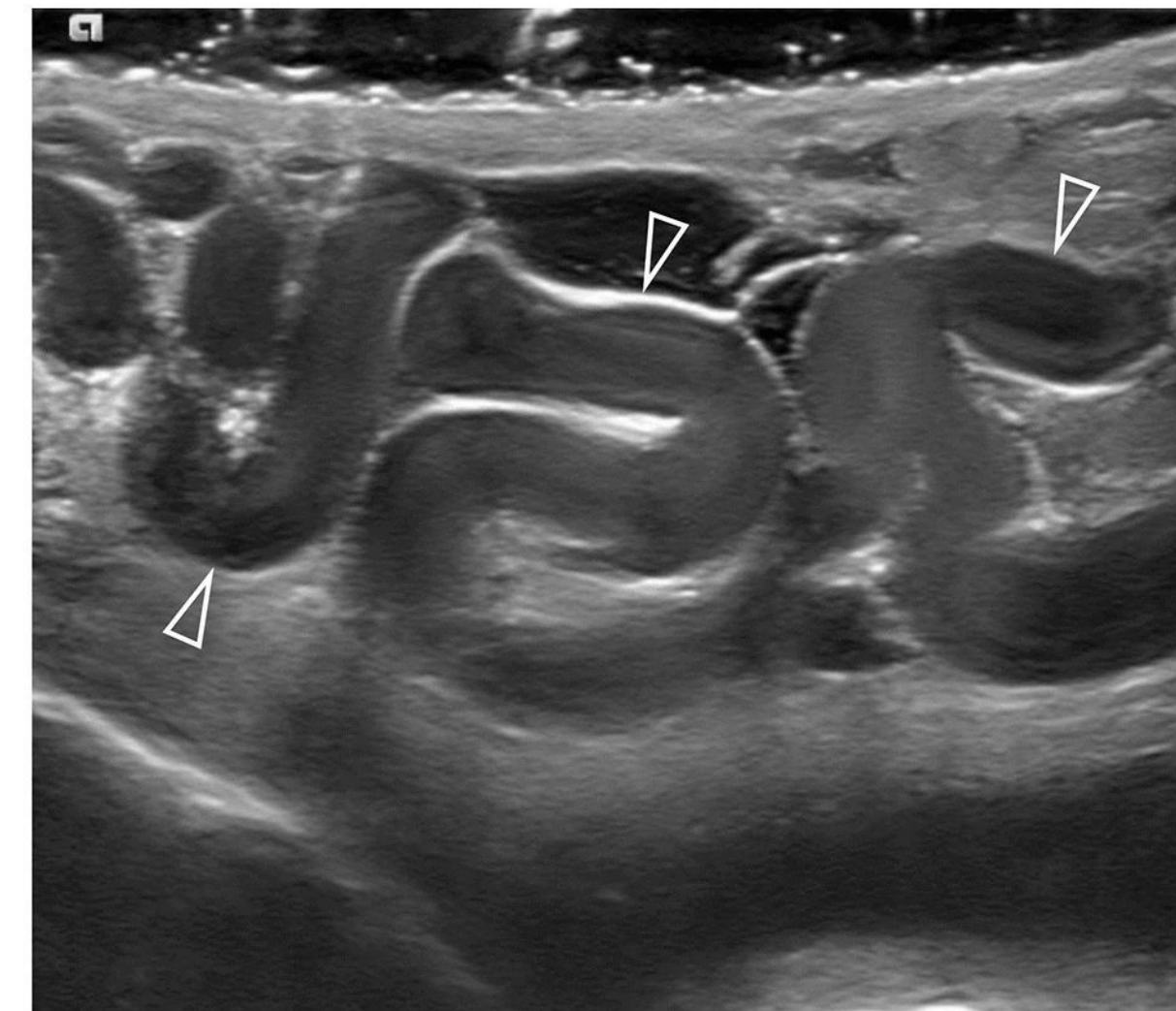
- For the preceding 9 months, he has been undergoing numerous evaluations by primary care physicians for his episodic pain. In addition, he was given increasing levels of pain control, including ketorolac and eventually a short course of opioid medications.
- At the beginning of his symptoms, he was participating in a community gym, with abnormal amounts of weightlifting exercise in his routine. He also noticed these “events” after straining with constipation, or wearing tight fitting clothes for an extended period of time.
- Past Medical History: Chronic migraines with aura, mild depression, intermittent constipation, and lactose intolerance.
- Medications: Sumatriptan for migraine abortive therapy, Qulitpa for prophylaxis, Fluoxetine for depression, Miralax for constipation
- He was referred to General Surgery for a likely right sided inguinal hernia, due to the typical nature of his history. He was offered a laparoscopic indirect hernia repair with mesh placement, and tolerated the surgery well.

PRESENTATION

- Cardiovascular: normal heart sounds, regular rate and rhythm.
- Respiratory: clear to auscultation bilaterally, moving air well.
- Abdomen: No signs of a palpable mass, no peritoneal signs, no signs of recurrence at hernia repair site, no obvious cause of patient’s symptoms.
- Labs: unremarkable CBC, Vitamin D Deficiency.
- UA: 1+ Occult Blood, Negative for Nitrites or Leukocyte Esterase.

Workup

- Ultrasound revealed tortuous dilated veins, similar to those seen on the right.
- Given the progressive and persistent nature of the patient’s symptoms, a CT scan of the abdomen was performed for further evaluation, with the image shown below.



- As can be seen, the image shows an abnormal left sided IVC.
- This abnormal variant is presumed to have predisposed this patient to have a tortuous course of his right sided renal vein to the IVC causing an increased likelihood of compression.
- After receiving the imaging, in conjunction with continued episodes, the patient was referred to vascular surgery.

OUTCOME

- The patient elected for conservative therapy and has managed by using looser fitting clothing to decrease intra-abdominal pressure
- Additionally, managing his constipation and decreasing weight-bearing exercises has improved symptoms

DISCUSSION

- Right sided nutcracker syndrome is a rare disorder that has a higher likelihood of presenting in patients with abnormal venous vasculature such as in this patient with a left sided IVC
- In a young male with a history of a scrotal mass that worsens with weightlifting, the leading differential is usually an inguinal hernia based on statistical probability alone
- However, a systematic workup should still be done to avoid anchoring and to differentiate between other differential diagnoses that, although are less likely, can still present similarly such as this patient who had hernia surgery without significant symptom relief
- Additional differentials include but are not limited to hernias, hydroceles, and varicoceles
- Hernias can be diagnosed through thorough history taking along with additional imaging such as ultrasound or CT
- Hydroceles and varicoceles can be distinguished through a thorough history and examination including transillumination, along with imaging such as ultrasound
- Symptomatic Nutcracker Syndrome in younger patients can be treated with invasive intervention; however, they can be treated conservatively for extended periods of time if monitored closely.

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