Abdominal pain in the setting of sexually transmitted infection

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History of present illness:

A 26-year-old male with a history of treated sexually transmitted infections, internal hemorrhoids, and anal fissure, presented with seven days of right flank and diffuse abdominal pain with associated dysuria, polyuria, and cloudy urine with yellow and brown urethral discharge. The patient has unprotected sex with men as a sex worker.

Pertinent physical exam:

The patient was tachycardic to 108 beats/min; he was afebrile and his other vital signs were normal. He was ill-appearing and uncomfortable. His abdomen was distended with exquisite tenderness in the right and left lower quadrants, without rebound or guarding. He was circumcised with purulent urethral discharge. There was no testicular swelling, scrotal or testicular tenderness, or genitourinary skin lesions. His bilateral inguinal lymph nodes were exquisitely tender.

Pertinent laboratory data:

His basic metabolic panel and complete blood count were unremarkable. His STI workup resulted with positive HIV 1 antigen and negative HIV 1/2 antibody. Nucleic acid amplification test was positive for Neisseria gonorrhoeae and negative for Chlamydia trachomatis. Lymphogranuloma venereum serologies titers were positive for C. pneumoniae IgM at 1:320 and C. trachomatis at 1:128. He also had a rapid plasma reagin titer of 1:64. His urinalysis showed large leukocyte esterase, 50 white blood cells and 10 red blood cells per field.

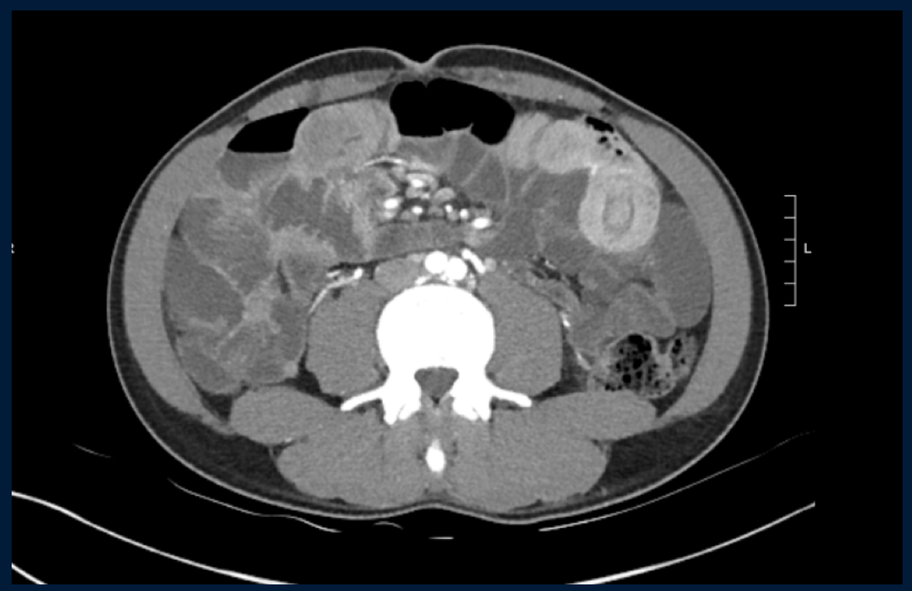
Questions:

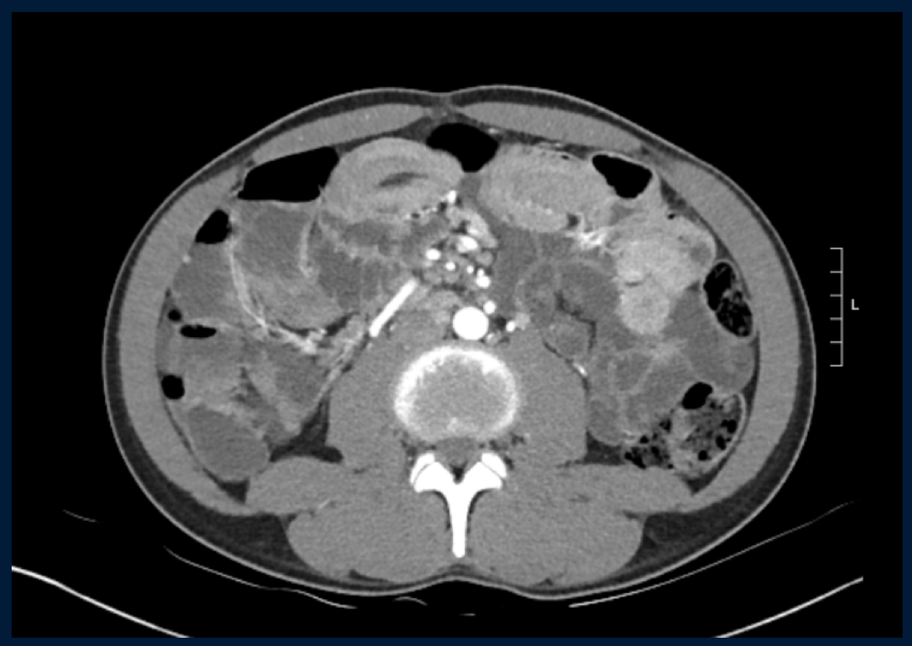
1. What is the etiology for this radiologic finding in an adult?
2. What caused this pathology in this patient?

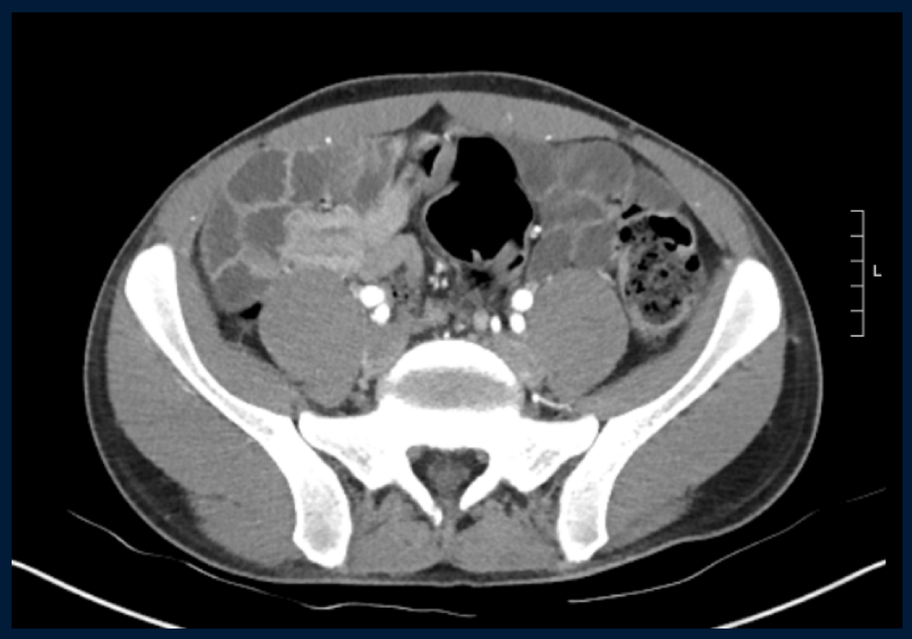
Answers:

1. Structural lesions such as malignancy are the most common lead point in adults. Additionally, hypertrophy of lymphoid tissue can be a lead point for intussusception (similar to Peyer's patch in pediatrics).

2. The patient had lymphadenopathy secondary to lymphogranuloma venereum in his bilateral inguinal lymphatic chains as well as in his mesenteric lymph nodes which served as lead points for his intussusception sites.







Case Discussion:

The patient was evaluated in the emergency department by the resident and attending. This young male patient had frequent sexual contacts with men, with subacute diffuse abdominal pain and tenderness, urinary symptoms, inguinal lymphadenopathy, and purulent penile discharge. The differential diagnosis included acute human immunodeficiency virus infection (HIV), in the context of his sexual history with lymphadenopathy, arthropathy, and general malaise. Systemic sexually transmitted infection such as chlamydia or gonorrhea was also considered.

CT of the abdomen and pelvis revealed three separate points of small bowel intussusception, with the longest involving the jejunum. It also showed enlarged bilateral inguinal lymph nodes with scattered enlarged perirectal lymph nodes, as well as two perirectal abscesses.

He was covered with empiric antibiotics to cover syphilis, gonorrhea, chlamydia, perirectal abscess, and pyelonephritis (ceftriaxone, ciprofloxacin, azithromycin; in the setting of penicillin allergy).

General surgery was consulted for management of the intussuscepted bowel and took the patient for operative management and reduced the intussuscepted bowel segments and drained his perirectal abscesses. An open laparotomy with reduction of the intussuscepted sections of small bowel and lymph node biopsies were performed and the surgical team suspected that the lead points were enlarged mesenteric lymph nodes. His lymph node pathology showed reactive and inflammatory lymphadenopathy.

He recovered well from his small bowel reduction and perirectal abscess drainage and continued his antibiotic course with addition of doxycycline for LGV. He was seen by infectious disease consultants and initiation of antiretroviral therapy was pending HIV genotyping.

Pearls:

- LGV is a rare diagnosis in non-tropical climates, although its incidence is increasing in American urban centers

- Intussusception is a rare diagnosis in adults, comprising only about 5% of intussusception

- In adults, intussusception is most commonly associated with pathologic lead points, such as neoplasm, hyperplasia, or polyps, and frequently must undergo open reduction or bowel resection to treat intussusception, whereas most pediatric intussusception can be treated with air enema.