Sexually Transmitted Disease: A Unique Cause of Small Bowel Obstruction in a Virgin Abdomen

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BACKGROUND:

Small bowel obstruction (SBO) is a common surgical emergency, accounting for approximately 300,000 surgeries annually in the United States. Postoperative adhesive disease accounts for the majority (55-80%) of SBO in the U.S., with hernias as the second most common cause (2-10%) and tumors or malignancy as the third most common cause (5-20%). Adhesive small bowel obstruction is extremely uncomplicated in patients with no prior abdominal surgeries, also known as a virgin abdomen. We present a unique case of SBO caused by prior sexually transmitted disease in an elderly patient with a virgin abdomen.

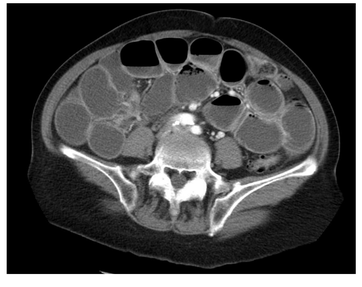
Patient H&P:

79 year old female with no significant PMHx or PSHx who presented to the emergency room with 5 days of abdominal pain and 2 days of nausea and vomiting.

Physical exam demonstrated a soft, distended abdomen with right sided abdominal tenderness. Imaging demonstrated dilated loops of small bowel with a transition point within the right upper quadrant in the abdomen seen below. Labs were non-contributory.

Preoperative CT Scans

Small bowel above the liver



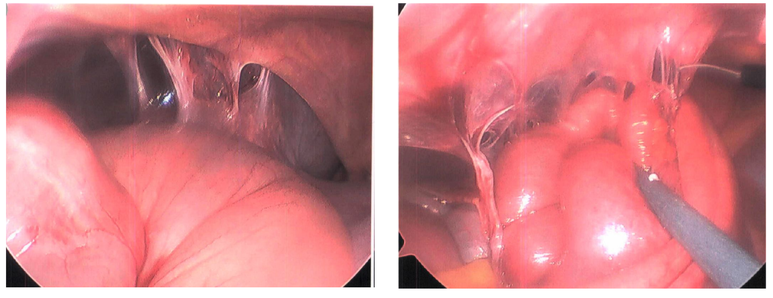
Dilated small bowel in the lower abdomen

Transition point seen in RUQ with dilated bowel loops in lower abdomen

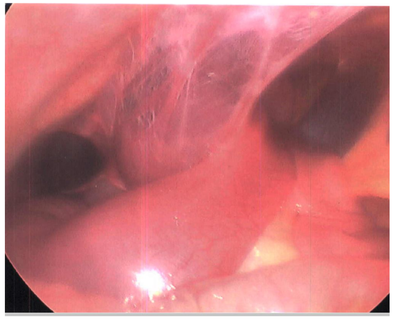
Surgical Findings:

Given the patient's lack of surgical history, clear transition point in RUQ, and no hernias on exam or imaging, our surgical team had significant concern for obstruction caused by a mass. The patient was offered diagnostic laparoscopy, with possible bowel resection and possible ostomy to evaluate the cause of and to treat her obstruction.

Diagnostic laparoscopy was performed, upon insertion of the laparoscope, attention was turned to the RUQ where dense adhesions were identified with multiple loops of dilated small bowel adhered to the anterior abdominal wall with an internal hernia noted with decompressed bowel loops passing through RUQ adhesive disease, as pictured below. These findings were consistent with the transition point seen on the preoperative CT. Adhesions were lysed sharply and the internal hernia was reduced.



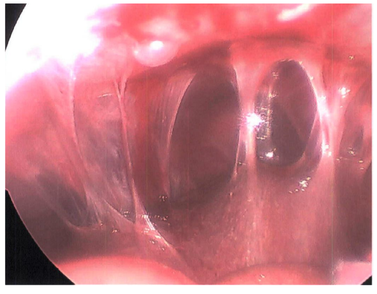
Adhesive small bowel disease identified in the RUQ



Internal hernia of small bowel through adhesions

Surgical Findings (continued):

Following enterolysis, the liver was exposed and violin string adhesions as seen below, diagnostic of Fitz-Hugh-Curtis syndrome. The remainder of the abdomen was inspected and no other abnormalities or evidence for obstruction were noted. Postoperative course was uneventful and the patient was tolerating a general diet and discharged on Post-Op Day 3 without complication.



Adhesions from liver to anterior abdominal wall characteristic of Fitz-Hugh-Curtis Syndrome

Discussion:

Pelvic inflammatory disease (PID), defined as inflammation of the upper genital tract in women from an infection, is typically ascending from the lower genital tract. Sexually transmitted disease, primarily chlamydia and gonococcal infection, is most commonly associated. PID is often subclinical, with higher rates of subclinical PID from chlamydia infection compared to gonococcal.

Fitz-Hugh-Curtis syndrome is an uncommon, chronic manifestation of pelvic inflammatory disease resulting in inflammation of the liver capsule. Laparoscopy is the gold standard for diagnosis, with findings demonstrating characteristic "violin-string" adhesions between the liver and diaphragm or liver and anterior abdominal wall. It has been documented as an incidental finding in benign pelvic surgery, however reports of SBO secondary to FHCS adhesive disease are rare, with patients typically being young, sexually active, and of child bearing age. Though our patient was older, her adhesive disease was diagnostic of FHCS and therefore the presumed cause of her bowel obstruction, likely from previous subclinical PID.

CONCLUSION:

In female patients presenting with SBO and a virgin abdomen, in the absence of hernias, Fitz-Hugh-Curtis Syndrome should be considered in the differential diagnosis for etiology of SBO.