Colovaginal Fistula in a Patient Without a Hysterectomy

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Background and Significance

- A fistula is an abnormal connection between two epithelialized surface most commonly after inflammation, trauma, malignancy, radiation, or prior surgery.
- Chronic inflammation secondary to acute diverticulitis can occur in up to 14% of patients.
- Women with episodes of acute colonic diverticulitis have an increased risk for colovaginal fistula.
- 94% of colovaginal fistulas are seen in women with diverticulitis and prior history of hysterectomy.
- This case highlights the rare occurrence of a colovaginal fistula in a setting of chronic diverticulitis without prior hysterectomy.

Patient Presentation

- 42 year-old female with chronic sigmoid diverticulitis with passage of stool and air from her vagina
- Multiple previous episodes of acute diverticulitis managed medically
- A CT scan performed one month prior to clinic presentation demonstrated a colovaginal fistula from her sigmoid to her vaginal fornix
- Colonoscopy showed sessile polyps with sigmoid diverticulosis but no gross evidence of colovaginal fistula
- Patient elected to proceed with an elective surgery

Operative Course

- A robotic assisted laparoscopic low anterior resection with coloanal anastomosis was performed
- Evidence of chronic abscess formation with subsequent 3cm fistula formation between the sigmoid and posterior vaginal fornix was visualized
- Patient recovered from surgery as without issue and was discharged postoperative day 2
- Patient reported complete resolution of vaginal discharge on her one month post operative clinic visit

Imaging

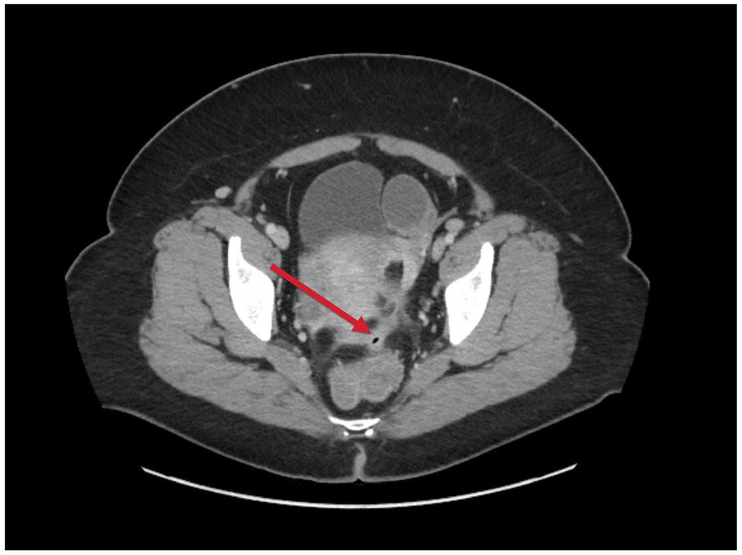

Image 1: CT scan demonstrating fistulous connection between the patient's sigmoid colon and vaginal fornix

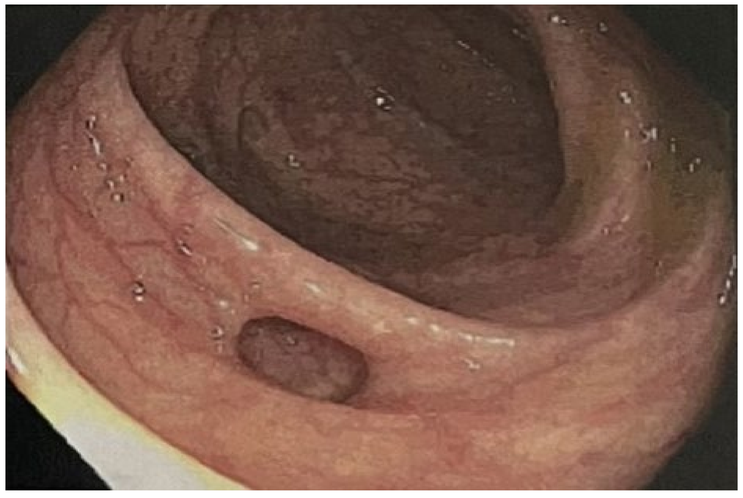

Image 2: Sigmoid diverticula during preoperative colonoscopy

Discussion

- Prior hysterectomy in patients with chronic diverticulitis increases risk for colovaginal fistulas due to anatomic proximity of the vaginal cuff and sigmoid colon.
- Intraoperative evidence of chronic inflammation secondary to intra-abdominal and pelvic abscesses were visualized denoting significant history of complicated diverticulitis.
- All previous diverticulitis episodes were treated with oral antibiotics which may not have been adequate given intraoperative findings secondary to complicated diverticulitis.
- Chronic inflammation to multiple diverticulitis flares with redundant sigmoid likely placed this patient at increased risk for colovaginal fistula development despite intact uterus.

Conclusion

- Surgeons should consider the possibility of a colovaginal fistulas in patients with a history of chronic diverticulitis presenting with unexplained unusual vaginal discharge, regardless of gynecological surgery history.
- More aggressive treatment may be warranted in patients with multiple episodes of diverticulitis flares
- Proper classification of diverticulitis flares and subsequent escalation of treatment may avoid significant complications and interventions in the future.

References

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