J-Pouch-Salpingeal Fistulization: A Rare Consequence of Chronic Pouchitis

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Introduction

- A proctocolectomy with ileal pouch-anal anastomosis, or more commonly known as a J-pouch, is a surgical modality for refractory ulcerative colitis (UC) [1]
- Although effective, there are several known complications including pouchitis; inflammation of the ileal reservoir that may extend transmurally [2,3]
- A mechanical complication includes development of a de novo fistula such as pouch-vaginal fistula, perianal fistula, or enterocutaneous fistula [4]
- We present a rare case of a fistula between the J-pouch and the fallopian tube resulting in gynecological symptoms

Case Presentation

- A 45-year-old female with UC requiring prior J-pouch creation complicated by chronic pouchitis despite several courses of antibiotics and adalimumab presented to clinic with feculent vaginal discharge
- An MRI fistulogram was done revealing a small focus of fluid in the vagina but no communication between the vagina and pouch (Figure 1)
- Worsening diarrhea prompted ED visit where a CT demonstrated pouchitis and air within the vaginal vault (Figure 2)
- She was taken to OR for pouch excision, creation of ileostomy, and takedown of presumed vaginal fistula
- Intraoperatively, a dense adhesion between the left fallopian tube and the pouch was noticed and appeared to be the source of the fistula. Vaginoscopy demonstrated the vagina to be intact.
- Proctectomy with mucosectomy, closure of anus, takedown of fistula, and end ileostomy creation was performed.
- Pathology showed chronic ileitis and mucosal ulcerations, but no granulomas.
- On outpatient follow up, patient no longer reported feculent vaginal output

Figures

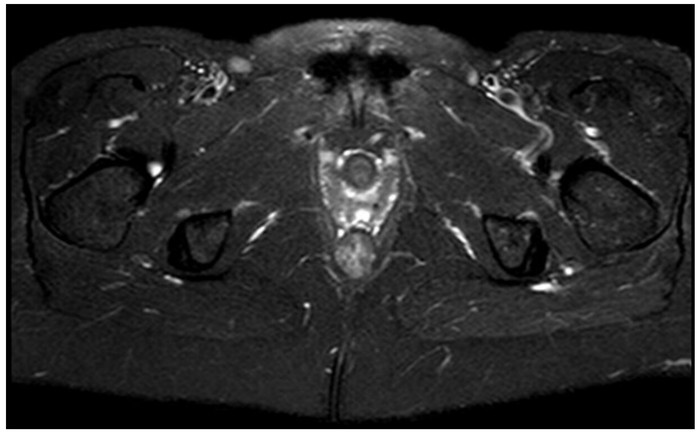

Figure 1: MRI Fistulogram
The pouch is thickened and there is fluid around it compatible with pouchitis. There is a 5 mm area of fluid either within the central portion of the vagina with no visualized fistula

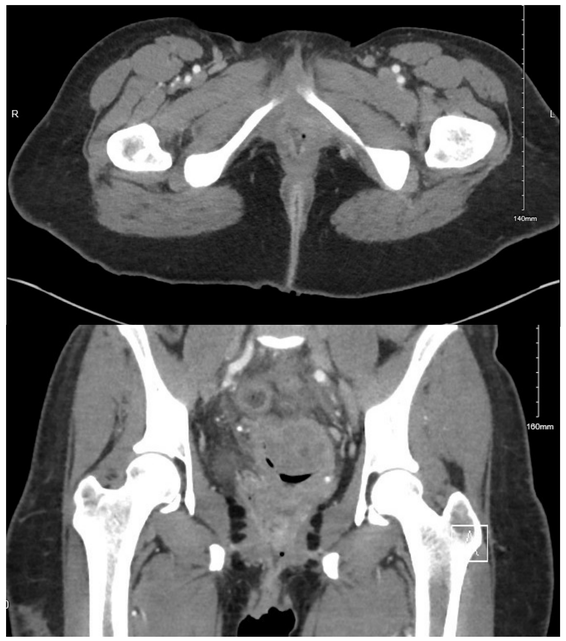

Figure 2: CT Imaging on Arrival to Emergency Department
Extensive thickening with surrounding fluid of the ileoanal pouch compatible with pouchitis. No definite intra-abdominal free air. Air seen within the vaginal vault with no definitive enterovaginal fistula visualized

Discussion

- Most common forms of pouch fistulae are pouch-vaginal fistula, perianal fistula, and enterocutaneous fistula [5]
- Risk factors for fistula development include prolonged corticosteroid use, anemia, low albumin, hypoxemia, tension on the anastomosis, and ischemia [5]
- There are prior case reports of ileo-salpingeal and colo-salpingeal fistulas due to Crohn's disease and diverticulitis [6,7]
- Our patient had persistent feculent vaginal discharge with no definite etiology despite undergoing an MRI fistulogram, multiple gynecological examinations, and CT scans
- The pathology from the surgery was histologically consistent with UC rather than Crohn's disease
- We believe that the chronic inflammation from the pouchitis resulted in a de novo fistula between the fallopian tube and J-pouch

Conclusion

- J-pouch is an effective modality for refractory UC but carries risk of pouchitis and fistula development
- To our knowledge, this is the first case of a fistula between the J-pouch and fallopian tube attributed to chronic pouchitis
- There is utility of surgical exploration in a patient with clinical symptoms of a fistula with negative imaging, especially in those with prior surgical interventions

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