Abdominal-IPAA Failure: Abdominal Pathology Causing Symptoms of Pouch Failure in Patients with an Ileal Pouch-Anal Anastomosis

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Background: A minority of patients with a restorative proctocolectomy and ileal pouch-anal anastomosis (IPAA) have chronic abdominal pain, per os (PO) intolerance and obstructive symptoms. Once an IPAA patient develops these symptoms they are labeled as having "pelvic pouch failure" and abdominal causes of their symptoms are largely neglected as efforts are focused specifically on their pelvic pouch. Patients with signs of pouch failure must be considered for abdominal pathology such as anastomotic stricture at the ileostomy closure site, chronic adhesive bowel obstruction and intestinal fistulae as post-operative abdominal complications of IPAA maybe the primary cause of symptoms.

Methods: Three consecutive patients labeled as pelvic pouch failure who underwent medical and endoscopic therapy for symptom control at a single institution inflammatory bowel disease center from January 1st 2023 – May 31st 2023.

Results: Three patients were included in the study, one was female, the average age was 54 (48-61 years old). All had initial diagnosis of UC, with the indication for IPAA being medical failure, dysplasia or malignancy. All patients had urgency, multiple bowel movements (9-30)/day, abdominal pain, PO intolerance and weight loss in the preoperative period. All patients underwent multiple endoscopic interventions (average of 4.6 times (range 2-9)), 2 were treated with 1+ biologic agents. Pouchoscopy showed all patients had strictures at the pouch inlet and the ileostomy closure site with proximal bowel angulation. Additionally, 1 patient had a partial pouch-twist and another had pouchitis. There was no pelvic sepsis. The indication for reoperative surgery was pneumoperitoneum after endoscopic dilation or failure to thrive in 2 patients. The time from IPAA to reoperation was 12 years (7-17). Operative findings for all 3 showed abdominal pathology causing chronic obstruction proximal to the pouch. The emergent case had 30cm of inflamed bowel and an ileal-ileal fistula with stricture and obstruction. One patient with failure to thrive had 2 strictured, non-functional side-to-side stapled anastomoses with nearly complete obliteration of the lumen and pseudosaculation, the

other had a fistula from the previous ileostomy closure to the pouch-inlet with angulation of the distal small bowel and severe desmoplastic reaction. All patients underwent a diverting stoma with bowel resection, additionally 2 of the patients had small bowel fistula takedowns, and 1 had a pouch-inlet stricture plasty. There were no post-operative septic events. The average length of stay was 11 days (8-13). All patients had resolution of their abdominal pain and obstructive symptoms and were discharged on PO diets.

Conclusion: After IPAA creation, patients may have "abdominal-IPAA failure" with symptoms of obstruction, stricture, fistulae and bowel angulation proximal to the pelvic pouch. Although symptoms overlap with pouch pathology (pouch twist, pouchitis, retained rectum, pelvic sepsis), patients with signs of pouch failure often suffer from a hyperfocus on pelvic pouch pathology, while surgical intervention aimed at correcting abdominal causes of their symptoms are overlooked.

A multidisciplinary treatment team with input from surgery is necessary for ideal treatment.