

Anorectal Manometry Protocols and Biofeedback Outcomes Vary for Patients with Ileal Pouch-Anal Anastomosis

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BACKGROUND

- Ileal pouch-anal anastomosis (IPAA) is commonly performed for patients with inflammatory bowel disease (IBD) requiring a total proctocolectomy (TPC)
- Emerging data suggests functional and evacuation disorders post-IPAA are common
- The utility and role of anorectal manometry and biofeedback for patients with IPAA remain unclear

OBJECTIVE

To evaluate the role of ARM in diagnosing pouch evacuation disorders, and the efficacy of biofeedback

METHODS

- **Design:** Retrospective qualitative chart review
- **Subjects:** UC or IBD unspecified adult patients who underwent TPC w/ IPAA for refractory disease or dysplasia between 2008 and 2018 who followed at one tertiary academic center
- Study included 19 patients (52.6% males) with an average age of 38.5 ± 14.5 years (standard deviation, SD) at time of ARM, an average of 3.6 ± 2.1 years after the final stage of IPAA.
- **Data collection:** Demographics, clinical parameters, and outcomes collected. Of the 794 patients with IPAA, 19 patients completed anorectal manometry at five different centers

RESULTS

- The indications for completing ARM were incomplete defecation (47.4%), dyschezia (26.3%), diarrhea (15.8%), fecal incontinence (10.5%).
- 47.3% patients completed balloon expulsion tests (BET) at time of ARM (66.7% of which were abnormal).
- 26.3% of patients carried a diagnosis of pouchitis at the time of ARM (n=5). 52.6% patients were ultimately found to have pouchitis or mucosal changes on subsequent pouchoscopy (n=5) or structural etiologies on MRI defecography (n=5), which were thought to account for their defecatory symptoms.
- 10 patients were recommended for biofeedback with mixed outcomes

CONCLUSIONS

- Consensus guidelines are needed for positioning of ARM and MRI defecography for evaluation of post-IPAA defecatory symptoms as well as for standardization of ARM protocol.
- The role of biofeedback in IPAA evacuatory disorders requires further investigation as well as validated criteria to assess improvement.

Table 1. Patient Characteristics and Anorectal Manometry Findings

Patient #	Sex	Age at ARM	IPAA Revision?	Indication	BET	Defecography	RAIR present?	ARM Findings	Biofeedback Response
1	M	64	Yes	Incomplete evacuation	-	-	Yes	Hyposensitive pouch, inability to completely relax.	2 sessions, no improvement
2	M	43	No	Dyschezia	-	-	Yes	High resting tone. No paradoxical contraction during evacuation	Not explicitly recommended
3	F	58	No	Fecal incontinence	-	-	Absent	Hyposensitive pouch. Slight paradoxical contraction on evacuation	Completed, no improvement
4	F	56	No	Fecal incontinence	-	-	-	Low resting tone, squeeze and push. No paradoxical contraction	Not explicitly recommended
5	M	21	No	Incomplete evacuation	Abnormal	Abnormal	Yes	Hypertonic sphincter. No paradoxical contraction during evacuation	Completed, significant improvement
6	F	36	Yes	Incomplete evacuation	-	-	Yes	Abnormal sensation. No paradoxical contraction during evacuation	Not explicitly recommended
7	M	32	No	Dyschezia	-	-	Absent	Spontaneous spasms of puborectalis. Paradoxical contraction during evacuation	Not explicitly recommended
8	M	22	No	Incomplete evacuation	Normal	Normal	Yes	No paradoxical contraction during evacuation	Not explicitly recommended
9	F	39	Yes	Dyschezia	Abnormal	-	Yes	No paradoxical contraction during evacuation	Completed, incomplete relief
10	F	63	No	Diarrhea	Normal	-	Yes	No paradoxical contraction during evacuation	Not explicitly recommended
11	M	32	Yes	Diarrhea	Abnormal	Normal	Yes	Paradoxical contraction during evacuation	Not explicitly recommended
12	M	20	Yes	Incomplete evacuation	-	-	Yes	Hyposensitive rectum. No paradoxical contraction during evacuation	Not explicitly recommended
13	F	35	No	Dyschezia	Normal	Normal	Yes	No paradoxical contraction during evacuation	Completed, incomplete relief
14	M	41	Yes	Diarrhea	Abnormal	-	Yes	Paradoxical contraction during evacuation	Not explicitly recommended
15	F	43	No	Incomplete evacuation	-	Abnormal	Yes	Mild paradoxical contraction evacuation	"Limited trial" with no improvement
16	F	23	Yes	Incomplete evacuation	-	Normal	Yes	Inadequate relaxation during evacuation	Recommended, not preformed
17	M	34	No	Incomplete evacuation	Abnormal	-	Absent	Paradoxical contraction during evacuation	Completed, significant improvement
18	M	19	No	Dyschezia	-	Abnormal	Yes	Hyposensitive rectum. Paradoxical contraction during evacuation	Recommended, not preformed
19	F	50	Yes	Incomplete evacuation	Abnormal	Normal	Absent	Paradoxical contraction during evacuation	5 sessions, with minimal improvement