

Aspects on Long-term Outcome After Restorative Proctocolectomy

Akademisk avhandling

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Avhandlingen baseras på följande delarbeten:

- I. Bengtsson J, Börjesson L, Lundstam U, Oresland T.
Long-term function and manovolumetric characteristics after ileal pouch-anal anastomosis for ulcerative colitis.
Br J Surg. 2007 Mar;94(3):327-32.
- II. Bengtsson J, Börjesson L, Willén R, Oresland T, Hultén L.
Can a failed ileal pouch anal anastomosis be left in situ?
Colorectal Dis. 2007 Jul;9(6):503-8.
- III. Bengtsson J, Lindholm E, Berndtsson I, Nordgren S, Oresland T, Börjesson L.
Sexual function after failed ileal pouch-anal anastomosis.
Accepted for publication in Journal of Crohn's and Colitis.
- IV. Bengtsson J, Adlerberth I, Östblom A, Saksena P, Nordgren S, Oresland T, Börjesson L.
Effect of probiotics (*Lactobacillus plantarum* 299®, *Bifidobacterium infantis* Cure 21®) in patients with poor ileal pouch function: a randomised controlled trial.
Manuscript



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Aspects on Long-term Outcome After Restorative Proctocolectomy

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Abstract

Background Restorative proctocolectomy is the preferred surgical alternative for reconstruction after proctocolectomy for ulcerative colitis. The majority of patients are satisfied with the functional outcome. However, a proportion of the patients suffer from complications and impaired pouch function. Furthermore, about 10% of the patients will have a definitive failure of the pouch. The aim of this thesis was to explore some of the long-term aspects of this surgical procedure.

Methods *Paper I:* 42 patients were assessed with a pouch functional score and manovolumetry. The outcome after median 16 years were compared to two years after surgery in a paired analysis. *Paper II:* Grade of inflammation, possible dysplasia and pouch related problems were assessed in 13 patients with pouch failure and the pouch still in place but deviated with an ileostomy. *Paper III:* 36 patients with pouch failure were compared to 72, age and gender matched patients with functioning pouches, regarding sexual function, body image and health related quality of life. The instrument used for sexual function was the female sexual function index (FSFI) and the international index of erectile function (IIEF). Body image was assessed with the body image scale (BIS), and health related quality of life with SF-36. Swedish version. 2.0. *Paper IV:* is a randomized, placebo-controlled, double blind study on the effects of probiotics (*Lactobacillus plantarum* 299, *Bifidobacterium infantis* Cure21) on 31 patients with poor pouch function. Assessments were made with a pouch functional index, the pouchitis activity index (PDAI), endoscopy, histology and faecal biomarkers.

Results The pouch functional score showed impairment at 16 year as well as the manovolumetric characteristics, except for resting anal pressure. Increased age and pouch volume were correlated to a worse functional score (Paper I). The majority of patients had no problems with the defunctioned pouch and dysplasia was not found (Paper II). Patients with pouch failure demonstrated lower scores in all domains in the FSFI and IIEF, as well as lower summary score in both instruments. However, the differences were not statistically significant. BIS summary score was significantly lower for both sexes in the patients with pouch failure. All domain SF-36 scores were lower for both sexes with pouch failure, though not statistically significant (Paper III). There was no significant difference between the probiotics and placebo groups regarding pouch functional score, PDAI or faecal biomarkers after treatment. Initial values of PDAI correlated significantly to all faecal biomarkers (Paper IV).

Conclusions A decline in pouch function at long-term, concurrent with alterations in pouch physiology as assessed with manovolumetry was demonstrated. The mucosa in the indefinitely deviated pouch showed no dysplasia. Furthermore, the majority of the deviated patients had no pouch related symptoms. This indicates that the pouch could be left in situ in case of pouch failure, but further follow-up is needed. Patients with pouch failure seem to have an impaired body image, but sexual function and health related quality of life were not significantly different compared to patients with functioning pouches. Probiotics did not improve poor pouch function compared to placebo.

Key words: restorative proctocolectomy; long-term function; pouch failure; sexual function; probiotics