

Title of Abstract: **Do Bowel Symptoms Change after Pelvic Reconstructive Surgery?**

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**Purpose & Rationale:** Our study is a secondary analysis of a randomized placebo controlled trial of senna with docusate versus placebo. The primary purpose of this analysis was to determine if women who undergo pelvic reconstructive surgery have a change in symptoms of constipation after pelvic reconstructive surgery. Symptoms of constipation are associated with pelvic organ prolapse [POP] (Jelovsek, 2005). The Patient Assessment of Constipation Symptoms (PAC-SYM) is a validated instrument that measures symptoms of constipation based on the Rome II criteria, which are standardized criteria to define constipation (Thompson, 1999).

**Research Questions:** Do bowel symptoms change after pelvic reconstructive surgery?

**Synthesis of Review of Literature:** One study has found that up to 70% of women with POP have symptoms of constipation, independent of the daily fiber intake, age and history of surgery for prolapse. (Arya, 2005). Another study using the Rome criteria for defining constipation found that 36% of women with prolapse also have constipation (Jelovsek, 2005). There are limited data on how bowel function and symptoms of constipation change after pelvic reconstructive surgery.

**Methods/Procedures:** Subjects who were being enrolled in a randomized trial of senna with docusate versus placebo after pelvic reconstructive surgery filled out the PAC-SYM questionnaire before and seven weeks after surgery. Information about age, stage of prolapse, use of fiber supplements, anti-cholinergics, calcium supplements and type of surgery was recorded. Scores on the PAC-SYM were compared using the paired t-test. Groups were compared based on the type of surgery; vaginal versus abdominal. We also separately analyzed the abdominal surgery group into those with laparotomy versus those who had a robot assisted or laparoscopic procedure (minimally invasive surgery group).

**Results:** At baseline, the subjects in the abdominal and vaginal surgery groups were not significantly different with respect to age, BMI, baseline use of fiber supplements, anti-cholinergics, calcium supplements and baseline stage of prolapse. At baseline, the subjects did have PAC-SYM scores that were similar and consistent with constipation, 0.82 (vaginal surgery group) versus 0.76 (abdominal surgery group), p value non-significant. All subscale scores were also similar between groups before surgery. After surgery, subjects in the abdominal surgery group had worsening scores on the PAC-SYM as compared to the vaginal surgery group, indicating that constipation symptoms were worse after surgery. The minimally invasive surgery group and laparotomy surgery group had similar post-operative PAC-SYM scores. When comparing the subscale scores, the abdominal surgery group had worse scores on questions related to abdominal cramping, pain and bloating than the other groups. However all other symptom subscales were similar between groups.

**Discussion/Application to Practice:** Women with POP experience symptoms of constipation at baseline. However, at baseline women with prolapse have more than three bowel movements per week and did not report significant strain or pain with bowel movements. Use of calcium or anti-cholinergics does not affect symptoms of constipation. After surgery, there are improvements in constipation related symptoms among women who have vaginal reconstructive surgery. In contrast, women undergoing abdominal pelvic reconstructive surgery had worsening symptoms of constipation. Minimally invasive surgery does not change symptoms of constipation.