

**TITLE:** Long-term Follow-up Study of Fecal Microbiota Transplantation (FMT) for the Treatment of Refractory Irritable Bowel Syndrome (IBS)

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**BODY:**

**INTRODUCTION:** The etiology of irritable bowel syndrome (IBS) is multifactorial and the intestinal microbiome is increasingly being studied as a contributing cause. Restoration of intestinal homeostasis via fecal microbiota transplantation (FMT) has resulted in impressive cure rates in recurrent *C. difficile* infection, but the role of FMT in treating refractory IBS has not been elucidated.

**METHODS:** A follow-up study was performed in patients who underwent FMT for refractory IBS after interventions of dietary modification, probiotics, antibiotics and/or anti-depressants had failed. A 41-item questionnaire assessed demographic and pre- and post-FMT data, quantifying severity of abdominal pain, bloating, flatus, and dyspepsia; diarrhea; constipation; and global well-being.

**RESULTS:** 13 of 18 eligible patients (54% women; 9 IBS-D, 3 IBS-C, and 1 IBS-M) were enrolled. Symptoms resolved or improved in 9 of 13 patients (70%) post-FMT. 11 patients had abdominal pain, and after FMT resolution, improvement or no change was reported in 3, 5 and 3 patients, respectively. 12 patients reported abdominal bloating which resolved, improved or did not change in 2, 4 and 6 patients, respectively. 12 patients complained of flatus, and after FMT, resolution, improvement, no change or worsening of flatus was reported in 1, 4, 6 and 1 patient, respectively. Of 6 patients with dyspepsia, 2 reported resolution, 2 noted improvement and 2 had no change after FMT. Before FMT, global well-being was reported as “good” in none, “acceptable” in 4, and “poor” in 9 patients. After FMT, global well-being was reported as “good” in 3, “acceptable” in 6, and “poor” in 4 patients.

**CONCLUSIONS:** FMT resulted in resolution or improvement of symptoms in 70% of our patients with refractory IBS, including abdominal pain (72%), bowel habit (69%), dyspepsia (67%), bloating (50%), and flatus (42%). Quality of life also was improved after FMT (46%).