

## Transplanting healthy stool might be an answer to ulcerative colitis

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Fecal microbiota transplantation (FMT)—a treatment currently used to address recurring Clostridium difficile infection—is also an effective approach to helping individuals who suffer from ulcerative colitis (UC), according to a study being presented at Digestive Disease Week (DDW) 2016, the largest international gathering of physicians, researchers and academics in the fields of gastroenterology, hepatology, endoscopy and gastrointestinal surgery.

Researchers in Australia found that one in four patients who were resistant or intolerant to conventional UC treatment—steroid or anti-inflammatories—achieved the study's dual goals: participants reported their symptoms went away and researchers determined, through endoscopic examination, that patients' digestive tracts improved, both without the use of steroids. Additionally, more than half the patients experienced symptom improvement with FMT. Researchers indicated that many UC patients are resistant or intolerant to conventional therapies.

"In recent years, researchers have gained a better understanding of the gut microbiota and the critical role it plays in health and disease, including conditions like <u>ulcerative colitis</u>," said Sudarshan Paramsothy, MD, a gastroenterologist from the University of New South Wales, Australia. "By using fecal microbiota transplantation, we aim to treat the underlying cause of ulcerative colitis instead of just its symptoms, as opposed to the majority of therapies currently available."



Dr. Paramsothy and his team enrolled 81 patients across three Australian study sites—41 receiving FMT treatment and 40 receiving placebo, or non-active treatment, who had active ulcerative colitis, as determined by the Mayo Scoring System for Assessment of Ulcerative Colitis Activity, and were resistant to standard non-biologic treatments. Patients received the first FMT and placebo treatment through a colonoscope. Subsequently, participants were given enemas that were self-administered five days per week for eight weeks.

After eight weeks, more than three times as many FMT patients responded to treatment than those in the control group. Specifically, 11 of the 41 FMT patients (27 percent) achieved the study's primary goal—patients reporting no UC symptoms and doctors determining the lining of the digestive tract had healed or substantially improved. Only three of the 40 patients (8 percent) in the control group reached this goal. When researchers looked at just the number of patients reporting being symptom-free (and discounted clinician observation of the colon), they found that 44 percent of FMT patients reported improvement versus 20 percent in the control group.

"Previous research in this area has been limited to small case series and two single center trials with conflicting outcomes. Our study is the first multi-centered trial that uses an intense therapy of FMT infusions, 40 over eight weeks, and has been able to show definitively that fecal microbiota transplantation is an effective treatment for ulcerative colitis," added Dr. Paramsothy. "This is important because there are millions of people worldwide seeking alternative treatments for their condition. This population is accustomed to using enemas as part of previous treatment, so our approach would not be unusual to them."

In FMT, clinicians collect fecal matter from healthy individuals who are screened to determine that the stool is safe for transplantation. The stool is processed and prepared for use, then placed in <u>patients</u> by methods



such as colonoscopy, endoscopy or enema. In this study, each FMT enema consisted of stool from at least three donors. Dr. Paramsothy and his team used this multi-donor method to ensure that study results were not influenced by a "donor effect," in which individual patient outcomes may be unduly influenced by the microbial characteristics of a single donor.

According to the Centers for Disease Control and Prevention, there are approximately 200 cases of UC for every 100,000 adults. UC is a chronic condition with no known cure. It causes inflammation and ulcers in the lining of the colon, which can lead to rectal bleeding, diarrhea and abdominal discomfort.

**More information:** Dr. Sudarshan Paramsothy will present data from the study "Multi Donor Intense Faecal Microbiota Transplantation is an Effective Treatment," abstract 600, on Monday, May 23, at 11:07 a.m. PT, in room 20BCD of the San Diego Convention Center. For more information about featured studies, as well as a schedule of availability for featured researchers, please visit <a href="http://www.ddw.org/press">http://www.ddw.org/press</a>.

## Provided by Digestive Disease Week

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