Patient Attitudes Towards the Use of Fecal Microbiota Transplantation in the Treatment of Recurrent Clostridium difficile Infection

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Background

- **Clostridium difficile** infection (CDI) is an inflammatory diarrheal illness most frequently associated with antibiotic use and characterized by disruptions in the normal gut microbiota.
- Up to 35% of patients treated with standard oral antibiotics will experience at least one recurrence. Approximately 65% of these patients will then go on to develop a chronic, recurring and debilitating form of the disease.
- Fecal Microbiota Transplantation (FMT) is a therapy that has been used quite effectively for recurrent CDI. The concept behind FMT is to reconstitute important gut microflora.
- FMT is infrequently used, and is generally considered only as a “last resort” after multiple CDI recurrences and treatment failures.
- There appears to be a widely held belief that both patients and physicians have an aversion to FMT based on its unappealing nature.

Study Aim

- To assess both patient perceptions of the aesthetics of FMT and also their willingness to consider it as a personal treatment option in the setting of recurrent CDI.

Methods

- Voluntary survey of DHMC general outpatient adult population: 400 distributed randomly → 192 completed → 191 C. diff-naive respondents.
- Scenario 1: Given description of CDI and symptoms, and published data on efficacy & safety of 2 therapy options: (1) antibiotics alone, & (2) antibiotics followed by FMT. Not given any details of FMT procedure. Asked participants whether they would choose option 1 or 2 if they had recurrent CDI.
- Scenario 2: Same as Scenario 1, but now given full description of FMT procedure. Based on new FMT information, participants asked again whether they would choose option 1 or 2 if they had recurrent CDI.
- FMT modifications: Participants asked whether changing various aspects of FMT influenced their willingness to choose FMT over antibiotics alone.
- Patient perceptions of FMT procedure: Asked participants to rank how unappealing they found various aspects of FMT (1-5 Likert scale).
- Patient willingness-to-pay for FMT: Asked participants how much they would be willing to pay out-of-pocket for FMT.

Results

- **Patients consistently choose FMT over antibiotics alone**
- **Patients find most aspects of FMT unappealing to various degrees**
- **Majority of Patients are Willing-to-Pay (WTP) Out-Of-Pocket for FMT**
- **Patients would prefer FMT in both inpatient & outpatient settings**

Conclusions

- Patients do find FMT unappealing!
- Despite this, we found that the vast majority of informed patients (up to 94%) chose to receive FMT if they were suffering from recurrent CDI.
- The most important factor further increasing (81%-94%) patients’ willingness to try FMT is a doctor’s recommendation.
- Our results suggest that physician-related factors may be a significant barrier to adoption of FMT as a treatment option.
- We have conducted a tandem survey study of physicians to examine their attitudes towards FMT and to identify specific barriers to physician adoption.
- There are opportunities to create FMT delivery systems that are more appealing to patients: colorless, odorless liquid and FMT capsule.

Limitations

- Our convenience sample of participants from an academic medical center in rural New Hampshire may not be generalizable to the population-at-large.
- The group surveyed was CDI-naive. However, we believe that patients who have had CDI would likely be even more willing to try FMT.

Funding & Acknowledgements

- Supported by a scholarship from the Infectious Disease Society of America 2011 Medical Scholars Program.
- We thank Mary Evanofski, Dawn DeFalce, and the clinical researchers at DHMC for their assistance in distribution of the surveys. Special thanks to Carolyn Freedman for her help with data analysis.
- The corresponding manuscript has since been accepted and published in Clinical Infectious Diseases: Zipursky JS et al. Patient Attitudes Towards The Use of Fecal Microbiota Transplantation in the Treatment Of Recurrent Clostridium difficile Infection. Clin Infect Dis. 2012; Sep. # (Epub ahead of print).

Selected References