



12-2018

Pilot Study of the Physiological Effects of an Integrative Medicine Approach in Irritable Bowel Syndrome

Gigi Constable

Thomas Jefferson University, julia.constable@jefferson.edu

Eleanor Lewis


Thomas Jefferson University, eleanor.lewis@jefferson.edu

Andrew B. Newberg, MD

Thomas Jefferson University, Andrew.Newberg@jefferson.edu

[Let us know how access to this document benefits you](#)

Follow this and additional works at: https://jdc.jefferson.edu/si_phr_2021_phase1

 Part of the [Gastroenterology Commons](#), [Medical Education Commons](#), and the [Public Health Commons](#)

Recommended Citation

Constable, Gigi; Lewis, Eleanor; and Newberg, Andrew, "Pilot Study of the Physiological Effects of an Integrative Medicine Approach in Irritable Bowel Syndrome" (2018). SKMC JeffMD Scholarly Inquiry, Phase 1, Project 1.

This Article is brought to you for free and open access by the Jefferson Digital Commons. The Jefferson Digital Commons is a service of Thomas Jefferson University's [Center for Teaching and Learning \(CTL\)](#). The Commons is a showcase for Jefferson books and journals, peer-reviewed scholarly publications, unique historical collections from the University archives, and teaching tools. The Jefferson Digital Commons allows researchers and interested readers anywhere in the world to learn about and keep up to date with Jefferson scholarship. This article has been accepted for inclusion in Phase 1 by an authorized administrator of the Jefferson Digital Commons. For more information, please contact: JeffersonDigitalCommons@jefferson.edu.

Gigi Constable
SKMC Class of 2021
SI PHR Abstract
12/10/2018

Pilot Study of the Physiological Effects of an Integrative Medicine Approach in Irritable Bowel Syndrome

Introduction: Irritable Bowel Syndrome (IBS) is the most common GI functional disease in the US, affecting 10-25% of the population and costing ~\$1.6B in annual healthcare spending.¹ Defined by varied GI symptoms, IBS is associated with gut inflammation from many factors, including diet, microbiome imbalances, and stress. However, the disease lacks a treatment algorithm, especially within integrative medicine.^{2,3}

Objective: This research explores integrative medicine approaches to IBS, including diet and supplements, to identify microbiome and symptom patterns before and after intervention.

Methods: Patients first complete surveys on diet and symptoms, the Beck depression inventory, the SF-36 questionnaire, PET-MRI imaging, and stool samples. Next, patients are counseled on the intervention, including diet, Proguard 100 probiotic (1 capsule/day), Glutacore powder (1 scoop/day), and Fiber Boost (1-3 capsules/day as tolerated). After two months, patients return for follow-up surveys, imaging, and stool samples.

Results: Data from two patients is available. Both patients demonstrated reduced *Ruminococcus* species, causing a low *Firmicutes:Bacteroidetes* (FB) ratio. Patients showed increased inflammatory markers (eg. fecal secretory IgA) and abnormal short-chain fatty acid ratios. Both patients were negative for parasites, ova, and occult blood.

Conclusion: Other IBS studies found high FB ratios, which our data contrasted with abnormally low ratios.⁵ Further diet and symptom analysis is needed to understand the drivers of this ratio and how species affect colonic fermentation and absorption. The small sample size hinders understanding of whether this conflicting data is consistent across patients or if it is outlying.

Works Cited

1. Canavan, C., J. West, and T. Card. "The Epidemiology of Irritable Bowel Syndrome." *Clinical Epidemiology* 2014 (2014): 71-80. Web.
2. Dorn, S. D. "Systematic Review: Self-Management Support Interventions for Irritable Bowel Syndrome." 32 Vol. Oxford, UK:, 2010. Web.
3. Zeng, M., N. Inohara, and G. Nuez. "Mechanisms of Inflammation-Driven Bacterial Dysbiosis in the Gut." *Mucosal Immunology* 10.1 (2017): 18-26. Web.
4. Grundmann O, Yoon SL. "Complementary and Alternative Medicines in Irritable Bowel Syndrome: An Integrative View." *World J Gastroenterol.* 2014;20(2):346-362. Web.
5. Jeffery IB, O'Toole PW, Öhman L, *et al.* An irritable bowel syndrome subtype defined by species-specific alterations in faecal microbiota. *Gut* 2012;**61**:997-1006.