Anti-Inflammatory Diet for Inflammatory Bowel Disease (IBD-AID)

Anne Barnard  
*University of Massachusetts Medical School*

Barbara C. Olendzki  
*University of Massachusetts Medical School*

Kathryn Post  
*UMass Memorial Health Care*

See next page for additional authors

Follow this and additional works at: [http://escholarship.umassmed.edu/ssp](http://escholarship.umassmed.edu/ssp)

Part of the [Dietetics and Clinical Nutrition Commons](http://escholarship.umassmed.edu/ssp/194), [Digestive System Diseases Commons](http://escholarship.umassmed.edu/ssp/194), [Gastroenterology Commons](http://escholarship.umassmed.edu/ssp/194), and the [Human and Clinical Nutrition Commons](http://escholarship.umassmed.edu/ssp/194)

Repository Citation  
Barnard, Anne; Olendzki, Barbara C.; Post, Kathryn; Erdil, Rachel; Olendzki, Gin-Fei; Foley, Anne; and Cave, David R., "Anti-Inflammatory Diet for Inflammatory Bowel Disease (IBD-AID)" (2015). University of Massachusetts Medical School. Senior Scholars Program. Paper 194.
[http://escholarship.umassmed.edu/ssp/194](http://escholarship.umassmed.edu/ssp/194)

This material is brought to you by eScholarship@UMMS. It has been accepted for inclusion in Senior Scholars Program by an authorized administrator of eScholarship@UMMS. For more information, please contact Lisa.Palmer@umassmed.edu.
Anti-Inflammatory Diet for Inflammatory Bowel Disease (IBD-AID)

Authors
Anne Barnard, Barbara C. Olendzki, Kathryn Post, Rachel Erdil, Gin-Fei Olendzki, Anne Foley, and David R. Cave

Keywords
Inflammatory Bowel Disease (IBD), diet, nutrition, anti-inflammatory, IBD-AID, Crohn’s disease (CD), ulcerative colitis (UC), prebiotic, probiotic

Comments
Poster presented on Senior Scholars Presentation Day at the University of Massachusetts Medical School, Worcester, MA, on April 29, 2015. Medical student Anne Barnard participated in this study as part of the Senior Scholars research program at the University of Massachusetts Medical School.

Copyright is held by the authors, with all rights reserved.
**BACKGROUND**

- Inflammatory Bowel Disease (IBD), including Crohn’s disease (CD) and ulcerative colitis (UC): Chronic, immune-mediated inflammatory conditions of the GI tract.
- Increasingly linked to dysbiosis, an imbalance in the gut microbiome.
- Pharmacological standard of care is not curative, thus driving the need and demand for IBD nutritional guidelines.
- The Anti-Inflammatory Diet for IBD (IBD-AID) emphasizes anti-inflammatory foods (probiotic and prebiotic) while limiting the intake of pro-inflammatory carbohydrates (refined sugar, lactose, and most grains).
- Previous case series - 11 IBD patients showed symptomatic improvement and down-scaling of medication regimens in all 11 patients after 4 weeks on the IBD-AID (Olendzki, et al. 2014).

**OBJECTIVES**

The purpose of this small prospective study was to further assess the efficacy and feasibility of the IBD-AID intervention for the treatment of CD, and to provide pilot data for a larger application.

**MATERIALS AND METHODS**

- Participants: 17 patients with biopsy-confirmed Crohn’s disease offered the treatment diet or standard medical care alone.
- Intervention (n=12): One individual nutrition counseling session and three IBD-AID-specific cooking classes in addition to usual care.
- Control (n=5): Usual care.
- Study duration: 2 months after 70% adherence to the diet for IBD-AID participants, and 2 months after baseline for control participants.

**OUTCOME MEASURES**

1. Reduction in symptomology, as measured by the validated Harvey Bradshaw Index (HBI).
2. Improvement in the need for immunomodulatory and anti-inflammatory medications.
3. Normalizing trend in circulating inflammatory markers (i.e., CRP and ESR), albumin, and hematocrit.

**FEASIBILITY MEASURES**

1. Participant retention.
2. Dietary compliance.
3. Participants’ self-assessments of difficulty in maintaining the diet.

**RESULTS**

- A total of 15 enrolled patients with confirmed diagnosis of Crohn’s Disease, 5 in observation arm, 10 in intervention arm.
- Average Age: 51 years.
- Harvey Bradshaw Index (HBI) scores dropped an average of 2.2 and 1.3 points for the Intervention group and Control group, respectively.

**DISCUSSION**

- Eliminating problem foods from the diet is often manageable for patients, but adding unfamiliar foods (particularly probiotics, such as plain yogurt, kimchi, miso, sauerkraut), is a huge barrier to maintaining compliance.
- May be a partial reflection of the Western food and dieting culture.
- Despite lack of statistical significance, the two patients who exhibited complete follow-up and on IBD medication at baseline (5-aminosalicylates, antibiotics, glucocorticoids, immunomodulators, and biologic therapies) (n=9) decreased doses of or discontinued these medications.
- 33% of patients with complete follow-up and on IBD medication at baseline (5-aminosalicylates, antibiotics, glucocorticoids, immunomodulators, and biologic therapies) (n=9) decreased doses of or discontinued these medications.

**CONCLUSION**

Overall, this small study highlights the need for larger-scale clinical trials in order to draft nutritional guidelines for IBD patients and further legitimize the utility of preventive clinical nutrition in Western medicine.