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## Pilot Testing a Novel Treatment for Inflammatory Bowel Disease


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# Pilot Testing a Novel Treatment for Inflammatory Bowel Disease

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## BACKGROUND and OBJECTIVE

Inflammatory Bowel Disease (IBD), which includes Crohn's disease (CD) and ulcerative colitis (UC), are chronic non specific inflammatory conditions. Standard IBD treatment typically employs a combination of anti-inflammatory and immune suppressive medications; however, the pharmacological approach is not by itself curative. The Anti-Inflammatory Diet for IBD (IBD-AID), which is derived and augmented from The Specific Carbohydrate Diet (SCD), is a nutritional regimen that restricts the intake of complex carbohydrates such as refined sugar, gluten-based grains, and certain starches from the diet. These carbohydrates are thought to provide a substrate for pro-inflammatory bacteria. The second component of the diet involves the ingestion of pre- and probiotics to help restore an anti inflammatory environment.

### Study Objective

To assess the efficacy and feasibility of the Anti –Inflammatory Diet (IBD-AID) intervention for the treatment of IBD.

## METHODS

**Intervention:** Patients were recruited from the UMMHC gastroenterology clinic upon referral from their gastroenterologist. They received individual instruction of the diet and its restrictions through 5 individual nutrition sessions over approximately a 6-10 month period. Support materials were provided. Cooking classes were also available to the patients.

### Outcome Survey Measures:

#### Ulcerative Colitis: Modified Truelove and Witts Severity Index (MTLW)

Scoring system of 0-21 points, clinical response is defined as a decrease from baseline score of 50% or greater, or less than 10 on 2 consecutive days

- Number of stools/day
- Nocturnal stools
- Visible blood in stools
- Fecal incontinence
- Abdominal pain/cramping
- General well-being
- Abdominal tenderness
- Use of anti-diarrheal drugs

Probiotic Foods	Prebiotic Foods
Aged cheeses	Artichokes
Dark chocolate	Asparagus
Fermented cabbage	Bananas
Kefir	Chicory root
Miso soup	Garlic
Microalgae	Honey
Pickles	Leeks
Yogurt (active)	Oats
	Onions

#### Crohn's Disease: Harvey Bradshaw Index (HBI)

- General well-being (0 = very well, 1 = slightly below average, 2 = poor, 3 = very poor, 4 = terrible)
- Abdominal pain (0 = none, 1 = mild, 2 = moderate, 3 = severe) number of liquid stools per day
- Abdominal mass (0 = none, 1 = dubious, 2 = definite, 3 = tender)
- Complications, with one point for each.

## RESULTS

Age	Sex	Disease	Disease duration	Extent disease	Dx Based on
39	F	CD	8 years	Rectum to transverse colon	Colonoscopy
47	F	CD	4 years	Distal ileum	Colonoscopy & MRI
39	F	CD	9 years	Distal ileum	Small bowel follow through
24	F	CD	14 years	Small bowel	Capsule endoscopy, sigmoidoscopy
39	M	CD	7 years	Ileocecal, perianal area	Colonoscopy and capsule endoscopy
69	M	UC	24 years	Descending colon & rectum	Colonoscopy
19	F	UC	5 years	Pan-colonic	Colonoscopy
40	M	CD	1 year	Colonic	Colonoscopy & MRI
41	M	CD	8 years	Distal ileum	CT scan & colonoscopy
37	F	CD	4 years	Ileocecal	CT scan & pathology from surgery
70	F	UC	19 years	Pan-colonic	Colonoscopy & histology

Age	Sex	Disease	Prior Tx Include	Recent Tx	HBI/MTLW before	HBI/MTLW after
39	F	CD	ASA, IM, aTNF	ASA +IBD-AID	HBI 12	3
47	F	CD	S, IM, aTNF	S(taper) + IBD-AID	HBI 9	2
39	F	CD	S,IM	IM + IBD-AID	HBI 12	2
24	F	CD	S,ASA, IM, aTNF	S(taper), IM + IBD-AID	HBI 15	0
39	M	CD	IM, aTNF	IBD+AID	HBI 20	0
69	M	UC	ASA, IM, aTNF	ASA, IM + IBD-AID	MTLW n/d	2; "improved"
19	F	UC	S,ASA, IM, aTNF	ASA, IBD-AID	MTLW 6	0
40	M	CD	S,ASA, IM	IM + IBD-AID	HBI 15	2
41	M	CD	ASA, IM	IM + IBD-AID	HBI 4	2
37	F	CD	S,ASA, aTNF; elemental diet	aTNF + IBD-AID	HBI 1	1; histologic remission
70	F	UC	ASA, IM, aTNF	aTNF + IBD-AID	MTLW 8	0

Therapy Legend: S=steroid dependant, ASA= 5-ASA derivatives, IM=immunomodulator, aTNF=Anti-tumor necrosis factor antibody

## Conclusion

This case series indicates the potential for the IBD-AID to be used as an adjunctive or alternative therapy for the treatment of IBD. Notably, 9 out of 11 patients were able to be managed without anti-TNF therapy, and 100% of the patients had their symptoms reduced. To make clear recommendations for its use in clinical practice, randomized trials are needed alongside strategies to improve acceptability and compliance with the IBD-AID.

