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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

**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 & MRI
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 | ASA, IM, aTNF | ASA, IBD-AID | HBI 15 | 2
40 | M | CD | S,ASA, IM | IM + IBD-AID | HBI 15 | 2
41 | M | CD | S,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.