

## Efficacy and tolerability of the autoimmune protocol diet for inflammatory bowel disease- Gauree G Konijeti- San Diego State University

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**Introductions:** Recent data suggest that dietary modification can improve clinical responses in Inflammatory Bowel Disease (IBD). The goal of this study was to determine the tolerability and efficacy of an autoimmune protocol (AIP) diet in patients with Crohn's disease (CD) and ulcerative colitis (UC). **Methods:** We have enrolled 18 adult patients with IBD with mild-moderate disease activity (HBI  $\geq$  5 or partial Mayo score  $\geq$  3), and objective evidence of active disease (endoscopy within 7 months and/or elevated fecal calprotectin (FC) within 1 month). Three patients withdrew prior to study start due to inability to commit to dietary change. Participants transitioned to the AIP diet over 6 weeks (elimination of grains, legumes, nightshades, dairy, eggs, coffee, alcohol, nuts and seeds, and refined/processed sugars, oils, and food additives) and then maintained the diet for 5 additional weeks. Serial laboratories, fecal calprotectin, microbiome and transcriptome analyses were performed. Endoscopy, radiology, and/or biomarker assessment were performed at study completion to assess for mucosal healing. **Results:** The final cohort included 9 patients with CD and 6 with UC. Mean IBD duration was for 19 years (SD 14.6) and active biologic use is in 7 patients. Nutrient repletion was initiated for deficiencies in vitamin D (n=3) and iron (n=6). From week 0 to 6, mean partial Mayo score improved from 5.8. No significant changes in lipid profile were observed at week 6. One patient with ileal CD with stricture withdrew due to worsening symptoms. **Discussion:** From this study, it was known that dietary elimination has the potential to improve symptoms and endoscopic inflammation in patients with inflammatory bowel disease. And larger randomized trials are needed to validate these findings. Adults with active IBD (Harvey-Bradshaw index or partial Mayo score and endoscopic and/or elevated fecal calprotectin erosion) were enrolled. Patients underwent 6 weeks of removal followed by a week of maintenance process for the autoimmune protocol. Baseline and weekly clinical indices, labs,

and biomarkers were evaluated, and endoscopy was performed at the conclusion of the study. Honors have also been awarded by AbbVie, Janssen, Pfizer, and Takeda. J. D. Lewis: Obtained research funding from Nestle Health Science and has previously worked for it. There are no conflicts of interest for the remaining writers to declare. The shift in environmental factors, particularly the Westernized lifestyle, combined with a change in diet, improved hygiene, vaccinations, increased use of antibiotic, urbanization, and improved access to medical supplies as increased use of oral contraceptives, is believed to be one of the key drivers of the increasing prevalence of inflammatory bowel disease (IBD) in Westernized countries. The move to a western diet characterized by high amounts of protein and (unsaturated) fat, but low amounts of vegetables, fibers, and fruits, is probably the highest influence of these influences on the production of IBD. In addition, this "Westernization" of dietary patterns may also be true. While there are no recommendations recommending a particular diet during defined disease, approximately 70% of IBD patients believe that diet affects their condition, nearly 60% of those believe that diet plays a major role in triggering a relapse, and 16% believe that diet might cause the disease. While patients with IBD are highly interested in nutrition, only 8-16 percent are happy with their doctors' information.