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Title:

Evidence-Based Food and Nutrition Strategies for Better Management of Ulcerative Colitis

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Abstract: (Your abstract must use **Normal style** and must fit in this box. Your abstract should be no longer than 300 words. The box will 'expand' over 2 pages as you add text into it.)

Preparation of Your Abstract

1. The title should be as brief as possible but long enough to indicate clearly the nature of the study. Capitalise the first letter of the first word ONLY (place names excluded). No full stop at the end.
2. Abstracts should state briefly and clearly the purpose, methods, results and conclusions of the work.
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Ulcerative colitis (UC) is a subtype of inflammatory bowel disease characterized by chronic inflammation in the large intestine. There is growing evidence that nutrition can complement standard medical treatment in UC management. However, insufficient best practice guidelines have limited the nutritional advice provided to people with UC. Therefore, we conducted a literature review to identify food and nutrition strategies that may be effective in improving gut health for better management of UC.

An in-depth literature review was undertaken to find nutrition interventions that are effective in reducing disease activity and maintaining remission in UC. Weight of evidence was randomized controlled trials (RCTs) >Cohort >Cross-sectional >non-RCT studies. A systematic review was conducted of the RCTs and data on disease activity and intestinal inflammation markers were extracted and summarized, with outcomes from similar RCTs meta-analysed.

A total of 9 RCTs, 6 observational, and 10 single-arm studies were reviewed. The review highlighted the importance of promoting fruit and vegetable intake and noted that many clinicians recommend limiting insoluble fiber during periods of disease activity. Four RCTs focused on maintaining remission, revealed no difference in disease activity between intervention and control diets post-intervention. However, fecal calprotectin (marker of intestinal inflammation) was lower in the intervention group in 2 of the 3 RCTs measuring this biomarker. Meta-analysis of these two studies showed a combined fecal calprotectin mean reduction of 329 µg/g after 3 months of a Mediterranean dietary pattern compared to a standard diet (CI 526.58 to 131.91 lower). Five RCTs focused on inducing remission, with four demonstrating significant improvements in disease activity scores, primarily through various elimination diets.

This review provides evidence that food and nutrition strategies are safe and may be used for better management of UC. However, further RCTs are required to increase the certainty of evidence.