Habitual dietary fibre and prebiotic intake is inadequate in patients with inflammatory bowel disease (IBD)

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FIBRE – Importance in IBD

- Habitual fibre intake shapes the constitution and function of the gut microbiome, providing substrate for short chain fatty acid production, which is vital to enterocyte function.[1]
- Despite the potential benefits of prebiotic fibres on the gut microbiome, many patients with IBD follow a low fibre diet.
- Patients with IBD are subject to highly variable and contradictory dietary recommendations, placing them at risk of harmful food exclusions.
- International nutrition guidelines for IBD fail to provide recommendations for fibre intake that differ to those for the general healthy population.[2]

OUR STUDY – What did we aim to do?

- Comprehensively evaluate habitual intakes of dietary fibre and fibre sub-types, including prebiotic fibres.
- Examine whether total fibre and resistant starch intake is adequate in comparison to available Australian recommendations.
- Identify factors that may be associated with fibre intake.

METHODS– Data collection & Analysis

- Outpatients with a formal diagnosis of IBD were recruited to this multi-centre cross-sectional study.
- Habitual fibre intake including prebiotic fibres were measured using the validated comprehensive nutrition assessment questionnaire (CNAQ).[3]
- Adequacy of total fibre intake was determined via comparison to recommendations outlined in the Australian Nutrient Reference Values (NRV).[4]
- Multivariable linear regression was performed to determine factors that may influence fibre intake.

RESULTS– Inadequate fibre intake

- The final number of participants was 92, 48 (52.2%) with CD and 44 (47.8%) with UC.
- The median intake of total dietary fibre was 24.0g/day (IQR 18.5-32.9).
- When compared to the Australian NRV's for total fibre intake, 38% of participants were classified as having an adequate fibre intake.
- There was a significant difference between the proportion of males (21.3%) and females (55.6%) who met the recommendations for fibre intake (p= 0.002).
- Median intakes of resistant starch within the examined cohort (2.9g/day, IQR 2.1-4.8) were significantly lower than proposed recommendations of 20g/day.[5]
- There were no significant associations found between total fibre intake and predictor variables.

PROBLEM

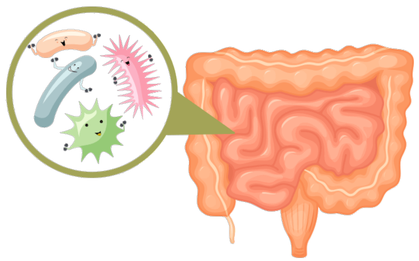
Widespread misguided advice for low fibre diets in IBD needs to be addressed with this information placing patients at risk of harmful dietary manipulation and food exclusions.

RESEARCH

Further studies are warranted to investigate the long-term effects of inadequate fibre and prebiotic intake in the IBD cohort, including effects on overall nutrient intake, the gut microbiome, and IBD-related outcomes.

OUTCOMES

This research can help contribute to a developing body of evidence to help inform dietetic practice and as a result potentially contribute to better health outcomes for our IBD patients.



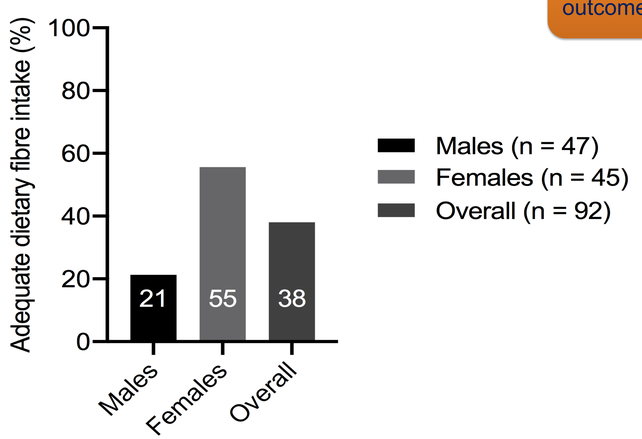


Figure 1. *Adequacy of fibre intake within the IBD cohort as compared to Australian Nutrient Reference values for total dietary fibre intake [4]*

References:

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