

Early Course of Inflammatory Bowel Disease and the Role of Food Additives in Disease Course: A Population-based Case-control Study From the Global Inflammatory Bowel Disease Visualization Of Epidemiology Studies In The 21st Century (GIVES-21) Consortium



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Introduction

- Limited understanding exists regarding disease progression and the impact of diet, especially food additives in incident IBD cases
- The GIVES-21 consortium, established in 2021, comprising 106 hospitals across 18 regions (13 in Asia, 4 in Latin America, 1 in Africa).

Objective

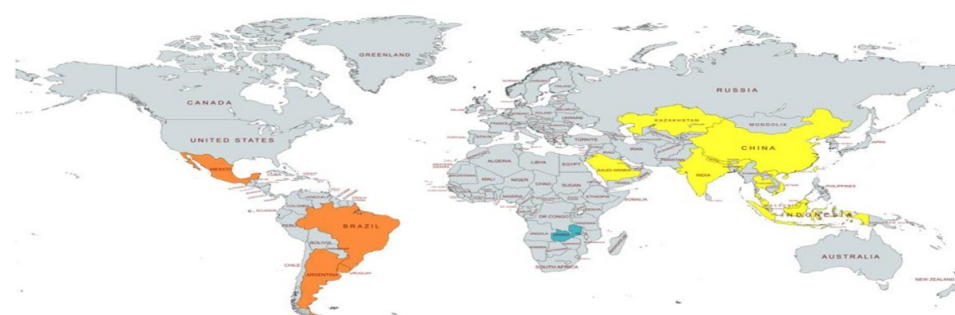
- To investigate incidence, disease progression, and influence of food additives on development and progression of IBD at 12 months after diagnosis

Methodology

- Population-based study
- Data collected from 2021 to 2023 on 828 IBD patients (508 UC, 284 CD, 36 IBD-U; median age: 37.8 years):
 - Analysis focused on disease course, severity, and mortality.
 - Food additives intake was quantified using Validated Current Additive Intake Questionnaire¹ assessing food additives intake in the last year, at recruitment, 6 months, and 12 months.
- Food additives of interest include (in mg/year): Aluminosilicates, aspartame, carboxymethylcellulose, carrageenan, P80, saccharin



Regions included in GIVES-21



Statistical Analysis

- Logistic regression was used to identify dietary risk factors associated with disease progression, biologic use and the need for surgery

Key Findings

- Of the 284 CD patients, 187 (65.8%) exhibited an inflammatory phenotype, 44 (15.5%) had a stricturing phenotype, and 34 (12.0%) presented with a penetrating phenotype at baseline.

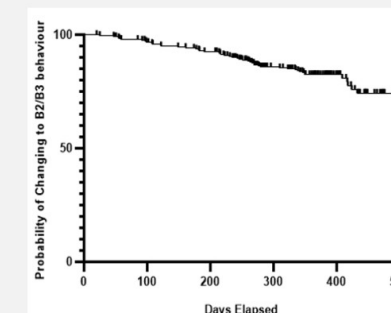
Conclusion

- A significant proportion of CD patients progressed to complicated phenotypes in their first year, with notable treatment disparities based on national income.
- The lack of correlation between food additives and disease outcomes suggests need for further exploration of other dietary factors to enhance IBD understanding

Key Findings

•Disease Progression:

- 1-year probability of CD changing to stricturing/penetrating disease: 17.9%.



•Biologic Use:

- 33.5% of CD patients and 10.8% of UC patients required biologics within the first year.
- Higher biologic usage in high-income countries vs. low-income countries. (CD: 38.2% vs. 17.9%; p=0.002; UC: 15.5% vs. 3.4%, p<0.001)

•Surgery:

- 21.2% of CD and 3.7% of UC patients underwent surgery within the first year.

•Mortality Rate:

- Overall mortality was 0.5%.

•Food Additives:

- Amount of food additives intake was not associated with subsequent biologic use, surgical requirement and change from inflammatory to stricturing or penetrating disease in both CD and UC.

Reference: 1. Trakman GL, et al. Nutrients. 2020 Mar 19;12(3):812

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