

IBS: Food Intolerance with CLE

■ GASTROENTEROLOGY ■

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STUDY DESIGN

Objective: To detect reactions to food with Confocal Laser Endomicroscopy (CLE) in a large IBS-patient population, and investigate mechanisms of these reactions



Results compared **patients with a reaction** to food during CLE (CLE+) to **patients with no reaction** during CLE (CLE-) or healthy controls (HC)

RESULTS

50-60%

of IBS patients may have a nonclassical food allergy

96%

of CLE+ patients experienced an improvement in symptoms,

with 68%

of CLE+ patients experiencing >80% improvement within 3 to 6 months of allergen exclusion

All patients displayed a negative response to food antigens on classical food allergy testing (skin-prick test and serum IgE to common food antigens), and **clinical symptoms were delayed by several hours in some patients**, despite an immediate duodenal reaction on CLE within 5 minutes of food exposure.

- A **mucosal permeability disorder** and **eosinophil activation** were found in CLE+ patients
- Numbers of intraepithelial lymphocytes were **significantly higher** in duodenal biopsies from CLE+ vs CLE- patients or controls
- CLE criteria include density of IELs; epithelial breaks/leaks of fluorescein into the lumen; presence of fluorescent signal between enterocytes; and widening of the intervillous space due to fluorescein leaking through the mucosa
- CLE may serve as an objective criterion standard to define the presence of adverse reactions to specific food components, despite negative IgE and skin-prick testing

CONCLUSION

More than 50% of IBS patients could have nonclassical food allergy, with immediate disruption of the intestinal barrier upon exposure to food antigens analysed with CLE

Exclusion of the defined food led to significant long-term symptom relief

Key Takeaway: In patients with a reaction to defined food components during CLE, IBS symptoms were reduced when these food components were withdrawn from the diet