

Non-coeliac Gluten Intolerance and Irritable Bowel Syndrome. An Approach to Diagnosis

Ramón Tormo Carnicé^{1*} and Sara Martínez Lagar²

¹Digestive System Disease Unit, Barcelona, Spain

²Quiron Hospital, Plaça d'Alfonso Comín, Barcelona, Spain

***Corresponding Author:** Ramón Tormo Carnicé, Digestive System Disease Unit, Barcelona, Spain.

Many patients with symptoms of those described in IRRITABLE bowel syndrome (IBS) such as abdominal pain, sporadic diarrhoea, flatulence, constipation, uncomfortable feeling of gastric fullness after meals, among other symptoms, eliminate gluten from their diet, without carrying out the diagnostic tests for coeliac disease, or even if these tests are negative and they claim to feel relieved for a certain period of time, an improvement that they attribute to the elimination of gluten.



Image 1: Image from "Mejor con Salud".

These cases would make up the group of non-coeliac gluten intolerance. Unfortunately, to date there is no biochemical test that ensures and allows us to maintain this diagnosis.

Generally, over the course of time of being subjected to these gluten-free diets, the sufferer falls back into such discomfort, aggravated by the discouragement that this causes them.

In my digestive pathology practice, I examine the stools of these IBS patients with a Lugol stain from the British Pharmacopoeia (LBPh), and sometimes I can only see a lot of starch, proof of an accelerated transit, without seeing undigested fat, proteins or pa-

rasites, but with abundant vegetable fibres; in 50% of these patients the methane concentration in exhaled air is elevated above 30 ppm, the normal maximum being 15 ppm, which shows an excess of fermentation in these patients.

Focusing on the fact that the main problem in the diagnosis of non-coeliac gluten intolerance is the lack of a precise diagnostic test, which separates it from the catch-all of irritable gut syndrome (IBS), we were somewhat optimistic about the method of diagnosis of non-coeliac gluten intolerance, we were given some optimism by the method of confocal laser endoscopy (CLE) (Endomicroscopy Fails to Detect Wheat Sensitivity in IBS Patients, by Zaina Hamza, Staff Writer, MedPage Today September 24, 2021, Medscape).

Christian Bojarski, MD, of Charité - Universitätsmedizin Berlin in Germany, and colleagues said. CLE, which "generates high-resolution images of the gastrointestinal tract after intravenous injection of fluorescein during ongoing endoscopy".



Image 2: Image from "Family Medicine on the Web".

The diagnostic accuracy of confocal laser endomicroscopy (CLE) was too low to identify wheat sensitivity in patients with non-coeliac irritable bowel syndrome (IBS), according to the prospective multicentre study. The method accurately detected wheat sensitivity in only about half of the people who responded to a gluten-free diet at 2 months (51.4% sensitivity, 97.5% CI 38.7-63.9%), reported Christian Bojarski, MD, of Charité - Universitätsmedizin Berlin in Germany and colleagues. CLE, "generates high-resolution images of the gastrointestinal tract after intravenous injection of fluorescein during ongoing endoscopy. Overall, CLE had a sensitivity of 83.1% (97.5% CI 69.9-91.3%) at 6 months to detect any food sensitivities (wheat, soy, yeast or milk) in the study sample, but a specificity of only 32% (97.5%). % IC 15.7-54.3%).

Mark Corkins of the University of Tennessee Health Science Center in Memphis said: "Everyone has been looking for some magical intervention for IBS for years," he said. "One of the big theories is gluten intolerance." "I loved the way they designed the study, I thought it was very well done and I trusted these results". Said Corkins, who was not involved in the research. "They were trying to use this laser endomicroscopy with its magnification capability. This is expensive, specialised, not something everyone does, and this study shows it doesn't work." Previous research had suggested that CLE could "represent a diagnostic tool to identify wheat-sensitive patients and could improve IBS therapy by offering causal treatment options". But, based on the findings, they concluded that it "cannot currently be recommended as an initial diagnostic test" and suggested that an 8-week gluten-free diet might be more beneficial.

The researchers acknowledged that the patients' response to the gluten-free diet may have been due to a reduction in intake of other wheat components, such as fermentable oligosaccharides, disaccharides, monosaccharides and polyols.

Conclusion

We agree with these conclusions; in a study in our Unit for internal protocols, we found that patients with IBS on a gluten-free diet ate half less as much gluten-free, bread and pasta as when they ate with gluten, a logical and understandable fact for several reasons, such as having to go to specialised shops, which are few in many cities, the lower palatability of gluten-free bread, with a great capacity for crumbling, and the much higher price of gluten-free products. By reducing the intake of carbohydrates, polysaccharides, polyols,

etc., it is understandable and consistent that they feel better, with less gas, less bloating and more normal bowel movements, at least for the first few months. On the other hand, the higher intake of rice in the gluten-free diet, rice that provides more arsenic, may be linked to motility disorders in the months following ingestion.

Finally, as an approach to the diagnosis of Irritable Bowel Syndrome (IBS), I suggest examining the stool with a Lugol stain from the British Pharmacopoeia (LBPh), assessing whether starch is visible in all fields, stained dark blue, which shows accelerated transit, without appreciating undigested fat, proteins or parasites, but with very abundant vegetable fibres; measure methane (CH₄) and hydrogen (H₂) in exhaled air (Quintron Mycrolyzer); since in 50% of these patients the concentration of methane in exhaled air is elevated above 30 ppm, the normal maximum being 15 ppm, which shows an excess of fermentation in these patients.

Assets from publication with us

- Prompt Acknowledgement after receiving the article
- Thorough Double blinded peer review
- Rapid Publication
- Issue of Publication Certificate
- High visibility of your Published work

Website: www.actascientific.com/

Submit Article: www.actascientific.com/submission.php

Email us: editor@actascientific.com

Contact us: +91 9182824667