

## Comparison of metagenomic profile of patients, meeting criteria for non-celiac gluten sensitivity, with and without response to restrictive diets

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### ***Background and objectives:***

Non-celiac gluten sensitivity is a disorder with similar symptoms to celiac disease, but with negative biomarkers, that is linked to the consumption of wheat and other foods containing gluten.

Despite being a fairly common disorder, there is no consensus among the medical community and studies to determine its etiology and diagnosis, to address the right treatment.

The hypothesis proposed was that dysbiosis might favor the development of gluten intolerance, since by causing an alteration of intestinal permeability and the potential trespass of the gut barrier by proteins that could be detected as antigens, triggering an immune and inflammatory response. Thus, the use of probiotics might be of help to their treatment.

### ***Methodology:***

Randomized pilot study (n=50) with parallel groups (25 each) design.

Patients meeting inclusion criteria were randomized to one of the two treatment groups: restrictive diet or diet plus treatment with probiotics.

### ***Results and conclusions:***

Although the study has not been completed, it has observed that approximately 8-10% of patients, meeting the inclusion criteria, and have been discarded celiac disease or any other pathology that could justify these symptoms, did not improve their symptoms, neither with the restrictive diet, nor with the restrictive diet plus probiotics.

It would be interesting to design a new project, including a metagenomic analysis of the intestinal flora to compare both, patients who do not respond to the treatment and patients that treatment

works. Differences could help to elucidate the problem of these patients and the right approach of their pathology.