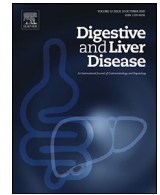




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Correspondence

Where are the non-celiac gluten-sensitive patients gone? The COVID-19 effect

Dear Editor,

Most people with celiac disease (CeD) manifest symptoms and damage to the intestinal mucosa by producing CeD-specific antibodies delivered in the blood when eating gluten. In most cases, the strict avoidance of gluten-containing cereals improves the symptoms, reverting the intestinal mucosal damage and decreasing the serum CeD-specific antibody levels [1]. The prevalence of CeD patients is above 1% worldwide, with a few exceptions [2]. However, market trends show that in the last decade, more people are likely to consume gluten-free food even without a diagnosis of CeD. It is suggested that in Western countries, one in 5 persons with gastrointestinal symptoms without a CeD diagnosis avoids gluten [3]. In several countries, there is a reimbursement policy for the extra cost of gluten-free food only with a definite CeD diagnosis. The notable growth of the gluten-free market in the last years is mainly sustained by the large number of persons who, for different reasons, avoid gluten from their diet. Among them are those defined as 'non-celiac gluten/wheat sensitive' (NCGWS) who manifest gastrointestinal and non-gastrointestinal symptoms, improving or disappearing when avoiding gluten. The diagnosis is complex, requiring a double-blind placebo-controlled study and sometimes a cross-over design [4]. However, most NCGWS patients choose to 'give a try' to the gluten-free diet without a proper diagnosis of CeD or NCGWS. Studies suggest that true "gluten sensitivity" affects only a tiny proportion of those who claim to be gluten-sensitive on a gluten-free diet [5].

During the Covid pandemic, CeD diagnoses were reduced for limited or worrying access to hospitals [6].

We investigated the trends of diagnoses of adult CeD and NCGWS in the tertiary center for gluten-related disorders of the University of Salerno, Italy, from December 1, 2017, to December 1, 2022. Data for CeD were derived from the Campania Registry for Celiac Disease (CeliaDB) and were all CeD serology- and biopsy-confirmed diagnoses. Data for NCGWS were retrieved from the clinical records of patients attending the Celiac Disease and Food Intolerance outpatient clinic. The data refer to those claiming to have NCGWS and who embrace a gluten-free diet despite not having had a double-blind, placebo-controlled trial.

The figure shows the trend over the years, with a brisk drop in diagnoses for both diseases in 2020 likely due to the Covid-19

pandemic, subsequent lockdown, and limited access to the hospital. However, in 2021 and 2022, the number of CeD diagnoses increased to almost the same values as in pre-COVID-19, without a parallel increase in NCGWS diagnoses. Where are the NCGWS gone?

The vast majority of the patients that reach our clinic (or the functional disorders clinic that refers NCGWS patients to the Celiac Center) are on a gluten-free diet. The reasons for consultation usually are dietetic information if the diet is not improving their symptoms or a formal diagnosis of celiac disease to get the reimbursement of gluten-free food, which in Italy is free for patients with celiac disease. The reasons for consultation did not change in the observation period. The Celiac Center and the functional disorders clinic have been fully operative since June 2020.

We cannot exclude that our findings are the cumulative effect of local factors; however, we need a clear explanation for the decrease in attendance.

We hypothesize that year by year, the popularity of the NCGWS increased to the point that patients feel that there is no need for medical advice to confirm it. In that case, however, one would expect a constant, slow decrease in hospital diagnoses, and ours was not the case. Another possibility is that the NCGWS patients have experienced a higher emotional burden during the pandemic and dread seeking medical care for a health condition that is not linked to a severe complication or death. The third possibility is that the COVID-19 pandemic has unfocused people with unexplained symptoms from gluten, moving their attention and their fear to the more aggressive Sars-Cov2 virus infection consequences and the vaccine side effects. Indeed, the use of anxiolytic drugs increased after Covid waves and lockdowns [7]. This latter issue could have also switched healthcare behaviors and choices of patients with functional gastrointestinal symptoms, leaving a self-manageable 'food intolerance' in the shade. The last possibility, although scientific data on the topic are scanty, is that the COVID-19 pandemic has limited personal healthcare resources. Therefore, patients might spend their time and money on the care of more life-threatening diseases (cardiovascular diseases, for example) than a self-manageable 'food intolerance'.

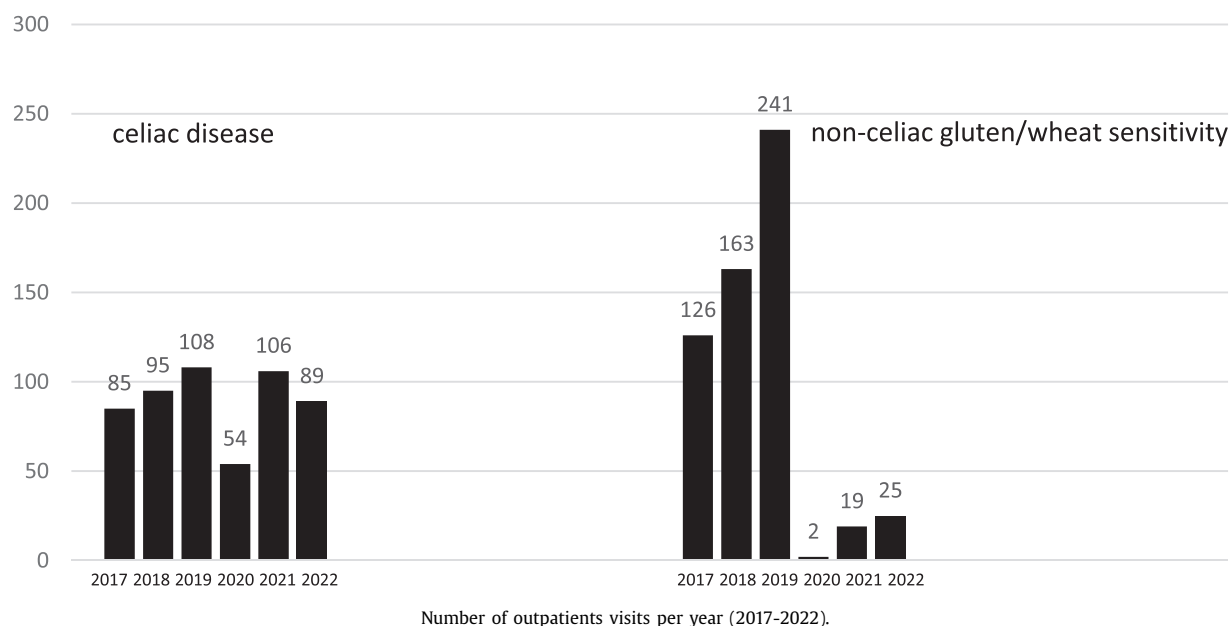
Whatever the explanation, the datum looks relevant for the current possible lack of appropriate medical care for people with NCGWS. It would be interesting to know if, post-pandemic, elsewhere in tertiary clinics, the attendance of NCGWS patients has changed.

Abbreviations: CeD, celiac disease; NCGWS, non-celiac gluten wheat sensitivity.

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number of diagnosis of celiac disease and non-celiac gluten/wheat sensitivity 2017-22



Conflict of interest

Carolina Ciacci and Francesco Valitutti declare they have no conflict of interest.

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