Natural history of potential celiac disease in children.


Source
Department of Pediatrics and European Laboratory for the Investigation of Food-Induced Diseases, University Federico II, Naples, Italy.

Abstract

BACKGROUND & AIMS: The presence of celiac disease-associated autoantibodies (antiendomysium and antitissue transglutaminase [anti-TG2]) with normal jejunal mucosa indicate potential celiac disease. We performed a prospective, 3-year cohort study to determine the natural history of potential celiac disease in children.

METHODS: The study included 106 children with potential celiac disease, based on serology analysis and normal duodenal architecture. All but 2 carried the HLA-DQ2 and/or DQ8 haplotype. In all children, every 6 months, growth, nutritional parameters, celiac disease serology, and autoimmunity were investigated. In biopsies, γδ intraepithelial-, CD3-, and lamina propria CD25-positive cells were counted; duodenal deposits of anti-TG2 immunoglobulin A were detected. Biopsy analysis was repeated after 2 years on patients with persistent positive serology and/or symptoms.

RESULTS: Celiac disease was detected primarily in first-degree relatives and patients with autoimmune disorders (40.6%). A gluten-free diet was prescribed to 20/106 patients because of symptoms, which were relieved in only 11. Eighty-nine of the 106 patients entered the follow-up study, with normal daily consumption of gluten. During the follow-up antibodies disappeared in 14.6% and fluctuated in 32.6%. Villous atrophy was observed in 12/39 patients (30.8%) who underwent a repeat biopsy.

CONCLUSIONS: Most children with potential celiac disease remain healthy. After 3 years, approximately 33% of patients develop villous atrophy. Intestinal deposits of anti-TG2 IgA identify children at risk for villous atrophy.
Coeliac disease and gluten sensitivity.
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Source
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Abstract
Coeliac disease (CD) is a systemic immune-mediated disorder elicited by gluten in genetically susceptible individuals. The common factor for all patients with CD is the presence of a variable combination of gluten-dependent clinical manifestations, specific autoantibodies (anti-tissue transglutaminase/anti-endomysium), HLA-DQ2 and/or DQ8 haplotypes and different degrees of enteropathy. Recently, gluten sensitivity has received much interest, although the limits and possible overlap between gluten sensitivity and CD remain poorly defined. At present, a number of morphological, functional and immunological disorders that are lacking one or more of the key CD criteria (enteropathy, associated HLA haplotypes and presence of anti-transglutaminase two antibodies) but respond to gluten exclusion are included under the umbrella of gluten sensitivity. The possible immunological mechanisms underlying these conditions are discussed. Emphasis is given to specific autoantibodies as markers of the coeliac spectrum and to the hypothesis that innate epithelial stress can exist independently from adaptive intestinal immunity in gluten sensitivity.