Non-celiac wheat sensitivity and ANA positivity: is there any association with autoimmune disease?

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Introduction: In the last decade non-celiac wheat sensitivity (NCWS) has raised great interest but unfortunately little is known about the links related to this condition. Our study aimed to evaluate the frequency of autoimmune diseases (AIDs) and of serum anti-nuclear antibodies (ANA) in these patients.

Materials and Methods: We recruited 131 NCWS patients (121 F, mean age 39.1 years), belonging to a historical cohort retrospectively evaluated, at two Internal Medicine Institutes. Two groups of age- and sex-matched controls, respectively composed of celiac (CD) and irritable bowel syndrome (IBS) patients, were also chosen. Co-existent of AIDs was recorded by a pre-structured questionnaire. ANA titers were evaluated by immuno-fluorescence.

Results: Positivity for serum ANA was proved in 46% of NCWS (median titer 1:80), in 24% of CD (P<0.001) and in 2% of IBS (P<0.001) cases. Absence of association between ANA positivity and the presence of the DQ/DQ8 haplotypes and with the presence of duodenal lymphocytosis was found. AIDs were identified in 29% of NCWS patients (Hashimotos thyroiditis 29 cases, psoriasis 4 cases, type 1 diabetes 4 cases, mixed connective tissue disease 1 case, myasthenia gravis 1 case), in 21% of CD (not statistically significant) subjects and in 4% of IBS controls (P<0.001).

Conclusions: We pointed out a strong tendency towards autoimmunity in the NCWS patients, characterized by both associated AIDs and serum ANA positivity and raised the question of an overlap between NCWS and CD.

Mucosal expression of interleukin (IL)-15 and its receptor IL-15Rα in celiac disease

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Introduction: Celiac disease (CD) is the most prevalent small bowel enteropathy triggered and sustained by the ingestion of gluten in genetically susceptible individuals. Both innate and adaptive immune responses are involved in the complex cascade leading to tissue damage. Despite the great strides made in the last decade in understanding its pathogenesis, the only available therapy is still a lifelong gluten-free diet. However, a number of patients may eventually develop complications such as refractory celiac disease (RCD), ulcerative jejunoileitis and enteropathy-associated T cell lymphomas (EATL). Interleukin (IL)-15 is a member of the IL-2 family of cytokines, and it was shown to play a central role in triggering the loss of tolerance to gluten, sustaining tissue injury through the activation of the Nk-like cytotoxicity of intraepithelial lymphocytes against epithelial cell lymphomas. Therefore, the aim of the present study was to investigate the levels of mucosal expression of both IL-15 and its receptor IL-15Rα in a cohort of complicated and non-complicated CD patients, and to establish whether they correlate with the degree of villous atrophy.

Aim: We aimed to investigate the levels of mucosal expression of both IL-15 and its receptor IL-15Rα in a cohort of complicated and non-complicated CD patients, and to establish whether they correlate with the degree of villous atrophy.