

Effect of gluten free diet on immune response to gliadin in patients with non-celiac gluten sensitivity

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Author information

Abstract

BACKGROUND:

Non-celiac gluten sensitivity is a syndrome characterized by gastrointestinal and extra-intestinal symptoms occurring in a few hours/days after gluten and/or other wheat protein ingestion and rapidly improving after exclusion of potential dietary triggers. There are no established laboratory markers for non-celiac gluten sensitivity, although a high prevalence of first generation anti-gliadin antibodies of IgG class has been reported in this condition. This study was designed to characterize the effect of the gluten-free diet on anti-gliadin antibodies of IgG class in patients with non-celiac gluten sensitivity.

METHODS:

Anti-gliadin antibodies of both IgG and IgA classes were assayed by ELISA in 44 non-celiac gluten sensitivity and 40 celiac disease patients after 6 months of gluten-free diet.

RESULTS:

The majority of non-celiac gluten sensitivity patients (93.2%) showed the disappearance of anti-gliadin antibodies of IgG class after 6 months of gluten-free diet; in contrast, 16/40 (40%) of celiac patients displayed the persistence of these antibodies after gluten withdrawal. In non-celiac gluten sensitivity patients anti-gliadin antibodies IgG persistence after gluten withdrawal was significantly correlated with the low compliance to gluten-free diet and a mild clinical response.

CONCLUSIONS:

Anti-gliadin antibodies of the IgG class disappear in patients with non-celiac gluten sensitivity reflecting a strict compliance to the gluten-free diet and a good clinical response to gluten withdrawal.