

IgA deposits against TG2 in duodenal biopsies of patients with sporadic idiopathic ataxia

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Summary

In a prospective evaluation of 350 patients with progressive ataxia done at our institution, 31% of patients with sporadic ataxia had no identifiable cause. A significantly larger number of patients have the HLA DQ2 genotype associated with coeliac disease compared to patients with genetic ataxias.

Gluten sensitivity can manifest with ataxia. We have identified a marker for the whole spectrum of gluten sensitivity: In vivo deposition of IgA antibody against tissue transglutaminase in small bowel biopsy. This may be the earliest and most specific marker of the whole spectrum of gluten sensitivity even in the absence of the serological markers. We have shown that all patients with any of the diverse manifestations of gluten sensitivity (enteropathy, dermatopathy, ataxia) have such deposits irrespective of the presence or not of enteropathy.

The aim of the study is to investigate if patients with sporadic idiopathic ataxia that possess the HLA susceptibility genotype associated with gluten sensitivity, but have no serological evidence of gluten sensitivity, have evidence of these deposits on small bowel biopsy. If such deposits are found the implication would be that these patients may also benefit from a gluten free diet in the same way as patients with gluten ataxia do.

Lay summary

Development of a new more sensitive marker for gluten sensitivity causing ataxia

Gluten sensitivity can result in a number of problems: celiac disease (a relatively common condition that results in problems in the gut), dermatitis herpetiformis (condition affecting the skin) and gluten sensitivity causing ataxia. At present gluten ataxia is diagnosed by looking for antibodies against gluten in the blood and by doing another blood test that suggests susceptibility to gluten sensitivity. However this method of diagnosis is not very specific as there is a proportion of the general population who also respond positively to these antibodies without necessarily having gluten ataxia.

Our team have however recently identified a marker for the whole spectrum of gluten sensitivity: the deposition of specific antibodies (IgA antibody against tissue transglutaminase) that can be seen in small bowel biopsies. We hypothesise that this is the earliest and most specific marker of the whole spectrum of gluten sensitivity that can be seen even in the absence of the antibodies in the blood. All patients with any of the diverse manifestations of gluten sensitivity (celiac disease, dermatopathy, ataxia) have been shown to have such deposits.

The aim of the study is to investigate if patients with unidentified cause for the ataxia that possess the correct genetic susceptibility but have no evidence of antibodies for gluten sensitivity in their blood, have evidence of these deposits on small bowel biopsy. If such

deposits are found the implication would be that these patients may also benefit from a gluten free diet in the same way as patients with gluten ataxia do.

For more support or information please contact:

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