



Gluten ataxia research – New diagnostic test (*Ataxian* 183, Autumn 2013)

Neurologist Prof Marios Hadjivassiliou, who runs the Sheffield Specialist Ataxia Centre and has expertise in gluten ataxia, has published results in the journal *Neurology** describing a new test that will help improve diagnosis of gluten ataxia.

Patients with cerebellar ataxia of unknown cause are currently tested for gluten sensitivity using a blood test for antibodies called gliadins. If they test positive they are given a diagnosis of gluten ataxia and are recommended to go on a gluten-free diet. Diagnosis is very important as this is one of the few treatable ataxias if diagnosed early enough. In this new study, the team in Sheffield and collaborators in Cardiff hypothesised that a different antibody against a brain enzyme called transglutaminase 6 (TG6) could be used as a diagnostic test for gluten ataxia. They found that a high proportion of those diagnosed with gluten ataxia in the traditional way also tested positive for TG6 antibodies (and, as expected, the healthy controls tested negatively). In addition, a Finnish group showed that after one year on a gluten-free diet the TG6 antibodies decreased in 11 out of 12 patients. These results show that the TG6 antibody test is a sensitive test for diagnosing gluten ataxia.

The researchers in Sheffield then also tested 65 patients with cerebellar ataxia of unknown cause who were negative for the gliadin antibodies, and thus would have had a negative diagnosis for gluten ataxia. They found that 21 (ie 32%) of these were positive for TG6. This suggests that the TG6 test might be more sensitive than the anti-gliadin antibody test, and that the prevalence of people with gluten ataxia is higher than previously thought.

If anyone with idiopathic cerebellar ataxia is interested in being tested for gluten ataxia they should ask for a referral to the Sheffield Specialist Ataxia Centre (see Ataxia UK's leaflet) or could ask their neurologist to contact Prof Marios Hadjivassiliou at the Sheffield Teaching Hospitals NHS Foundation Trust. He is currently doing these tests on a research basis although there are plans to introduce them as diagnostic tests within the NHS.

*Reference:

Hadjivassiliou *et al.* *Neurology* 2013, May 7;80(19):1740-5.

For more support or information please contact:

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We have a number of other publications on the ataxias available free of charge. In addition we publish a quarterly magazine called *The Ataxian* containing articles on research, living with ataxia and other relevant information. Our website also contains news of research projects.

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