

AAN 70th ANNUAL MEETING ABSTRACT

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Abstract Title: Gluten Neuropathy: Prevalence of Pain and the Role of Gluten-free Diet

Press Release Title: Gluten-Free Diet May Help People with Neuropathic Pain

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Background: Gluten neuropathy is the second most common neurological manifestation of gluten sensitivity, after cerebellar ataxia. It is defined as an idiopathic neuropathy, in the absence of an alternative etiology despite extensive investigations, and in the presence of serological evidence of gluten sensitivity (IgA and/or IgG antigliadin antibodies).

Design/Methods: All consecutive patients with GN attending a specialist gluten/neurology clinic were invited to participate. Pain was assessed via the DN4 questionnaire and the visual analogue scale (VAS). Overall Neuropathy Limitations Scale (ONLS) was used to assess the severity of neuropathy. The Mental Health Index (MHI-5) was used to measure participants' general mental health status.

Results: In total, 60 patients (76.7% males, mean age 69.9±10.1 years) with gluten neuropathy were recruited. Pain was present in 33 patients (55.0%).

Comparison between groups of painful and not painful GN did not show significant differences regarding age, gender, neuropathy severity and neuropathy type. Patients with painless GN were more likely to be on a strict gluten-free diet (55.6% versus 21.2%, $p=0.006$). Patients with painful GN presented with significantly worse MHI-5 score 75.9±13.8 versus 87.4±8.1, $p<0.001$).

Multivariate analysis showed that, after adjusting for age, gender and MHI-5, strict gluten-free diet was associated with lowering the odds of peripheral neuropathic pain by 88.7% (95% CI 47.2% – 97.6%, $p=0.006$).

Conclusions: Pain is very prevalent in GN and is associated with poorer mental health status. A strict gluten-free diet might be protective as it is associated with a significant reduction of the odds of peripheral neuropathic pain associated to GN.