

# Abstract

Neurologist. 2009 Nov;15(6):355-6.

## **Copper deficiency myeloneuropathy due to occult celiac disease.**

Goodman BP, Mistry DH, Pasha SF, Bosch PE.

Departments of Neurology and daggerGastroenterology, Mayo Clinic, Scottsdale, AZ.

**INTRODUCTION:** Copper deficiency is an increasingly recognized cause of gait unsteadiness. Recognized causes of copper deficiency include excess zinc ingestion, and malabsorption. Although hematologic abnormalities have been attributed to copper deficiency in patients with celiac disease, myeloneuropathy due to copper deficiency has not been well described in patients with celiac disease.

**CASE REPORT:** A 69-year-old woman was evaluated for a 5-year history of progressive gait unsteadiness and weight loss. She had no other gastrointestinal symptoms. Her neurologic examination revealed a sensory ataxia, and electrodiagnostic testing confirmed a myeloneuropathy. She had decreased serum copper levels and markedly elevated gliadin and tissue transglutaminase antibodies. Subsequent duodenal biopsy showed findings consistent with celiac disease. The patient was diagnosed with copper deficiency myeloneuropathy due to celiac disease. Adoption of a gluten-free diet along with copper supplementation resulted in significant clinical improvement, including improvement on electrodiagnostic testing.

**CONCLUSIONS:** Celiac disease should be considered in patients found to have copper deficiency, even in patients without gastrointestinal symptoms. Furthermore, the authors suggest that some cases of ataxia associated with celiac disease are likely due to copper deficiency myeloneuropathy.

PMID: 19901719

