

## ***Something to Chew On: Denture Adhesive-Induced Copper Deficiency Myeloneuropathy in a Patient with Suspected MS***

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Copper deficiency myeloneuropathy is a well-described but rare cause of peripheral neurologic deficits. Here, we describe a case of a 60-year-old man with progressive ascending sensory loss that was initially attributed to Multiple Sclerosis but later determined to be due to severe copper deficiency likely due to toxic zinc ingestion from denture adhesive overuse. Upon presentation, physical examination revealed length-dependent sensory deficits in vibration, proprioception, and temperature sensation in both the upper and lower extremities as well as absent Achilles tendon reflexes bilaterally. CSF studies were notable for oligoclonal bands, which, in the setting of the patient's subacute neurologic findings, raised concern for possible MS despite the absence of supportive findings on imaging. The patient appeared cachectic with a body mass index of 15, and examination of the oropharynx revealed an absence of teeth requiring the use of poorly fitting dentures affixed with large amounts of denture adhesive. The rate of inadvertent consumption of this zinc-containing denture adhesive was found to reflect toxic levels of intake, and additional investigation yielded critically low serum copper and ceruloplasmin levels leading to the diagnosis of copper deficiency myeloneuropathy. In this case, the presence of oligoclonal bands in the CSF of a patient with neurologic deficits concerning for MS proved to be a red herring. Accurate diagnosis and initiation of appropriate treatment were made possible by thorough investigation including imaging studies and serological evaluation of micronutrient deficiency, which are especially important to consider in patients using denture adhesive among which the risk of zinc toxicity-induced copper deficiency is particularly high.