Atrophic glossitis from vitamin B12 deficiency: a case misdiagnosed as burning mouth disorder.

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BACKGROUND: Glossodynia, or painful sensation of the tongue, can have a spectrum of etiologies, such as local infection, trauma, nerve damage, glossitis, or the enigmatic neuropathic pain syndrome, burning mouth disorder (BMD; also known as burning mouth syndrome). Careful history-taking, physical examination, and appropriate laboratory screening can differentiate these causes of glossodynia and direct further therapy.

METHODS: A 73-year-old woman presented with several months of glossodynia having previously been diagnosed by her primary care physician with primary BMD. Subsequently, she consulted an otolaryngologist, who pursued further diagnostic evaluation.

RESULTS: Examination revealed the presence of a beefy, red, smooth tongue, and further laboratory evaluation yielded a low serum vitamin B(12) level and macrocytosis. Three months of oral vitamin B(12) supplementation led to partial restoration of serum vitamin B(12) levels and a modest improvement in symptoms. Her final diagnoses were atrophic glossitis and glossodynia secondary to vitamin B(12) deficiency, most likely due to pernicious anemia.

CONCLUSIONS: The results of this case have important clinical implications for the diagnostic evaluation and management of patients with glossodynia and apparent BMD. Pathogenic mechanisms of nutrient deficiency in atrophic glossitis are discussed.

PMID: 17209796