White Tongue Lesions: Candida, Contact Stomatitis, Oral Lichen Planus?

An otherwise perfectly healthy 35-year-old man presents with a 3-month history of white lesions that covered the dorsolateral aspect of his tongue. The patient would brush his tongue and rinse with mouthwash, which removed most of the white material, but the lesions would recur within a few days. There was no oral pain, except for some irritation of the tongue if it was brushed too vigorously. The patient denied habitual tongue-biting habits and skin lesions. He was not currently a smoker, and had not smoked for several years. He frequently chewed cinnamon-flavored gum.

No extra-oral lesions were detected, and there was no lymphadenopathy.

Thick whitish plaques were noted on the right and left dorsolateral aspects of the tongue, as show in Figure 1, above. Some of these plaques could be rubbed or pulled off of the tongue; detachment was not associated with red or bleeding surface. There was minimal erythema of the anterior dorsal aspect of the tongue where there were no white plaques. The tongue was not tender and was not indurated with palpation. The teeth and restorations were not sharp, nor did they impinge on the tissue of the tongue. No other significant oral changes were noted.

Which of the following key differential diagnostic contenders do you suspect was the cause of these lesions?
A. Contact stomatitis from cinnamon flavoring in gum
B. Chronic hyperplastic candidiasis
C. Morsicatio linguarum (habitual chewing of the tongue)
D. Oral lichen planus

Answer and Discussion on next page...

Final Diagnosis: (A) Contact Stomatitis
The condition most likely occurred as a result of exposure to cinnamon in chewing gum. The patient was asked to discontinue chewing cinnamon flavored chewing gum. Following cessation of the gum chewing his lesions resolved (Figure 2) and did not recur.

Discussion
Oral contact stomatitis to cinnamon is not well reported in the literature. Endo and Rees\(^1\) reported clinical findings from 36 patients with suspected cinnamon allergy. The gingival tissue was involved most frequently and the lesions involved general erythema and epithelial sloughing. The apparent cause of the mucosal changes in the reported cases was identified as toothpaste, cinnamon chewing gum, and food.

Another 14 cases were reported by Miller and colleagues.\(^2\) The histology of these cases ranged from hyperkeratosis to inflammatory change localized primarily to the buccal mucosa in relation to the cinnamon irritant. The lesions in these cases were not ulcerative and mildly symptomatic.

In their review on contact stomatitis, Tosti and associates\(^3\) noted that mucosal change in response to metal and other irritants may include erythema, erosions, ulcerations, leukoplakia-like lesions, and lichenoid reactions. For some types of contact stomatitis, the clinical signs may be less pronounced than the subjective symptoms, according to these authors. Functional disturbance can be quite severe.

Identification of the potential offending irritant and its discontinuance may be all that is necessary to manage a contact stomatitis. However, if symptoms are severe and suggest erythema multiforme,\(^4\) a short course of systemic corticosteroid (40 to 60 mg initial dose) delivered with taper over 10 to 14 days can produce dramatic improvement. Nonresolution of lesions may necessitate an additional regimen of a systemic or topical corticosteroid, such as fluocinonide (0.05 gel).

Teaching Points
- Contact stomatitis can occur as a result of cinnamon exposure.
- The condition can easily be managed by withdrawal of the antigen.
- A short course of systemic corticosteroid delivered with taper over 10 to 14 days can produce dramatic improvement if symptoms are severe.

References:

For More Information
• Kind F, Scherer K, Bircher AJ. Allergic contact stomatitis to cinnamon in chewing gum mistaken as facial angioedema. Allergy. 2010;65:276-277.

Source URL:
http://www.physicianspractice.com/white-tongue-lesions-candida-contact-stomatitis-oral-lichen-planus

Links: