Painful tongue lesions associated with a food allergy

Catherine M. Flaitz, DDS, MS Carmen Chavarria, DDS

Dr. Flaitz is professor, Oral and Maxillofacial Pathology and Pediatric Dentistry, and Dr. Chavarria is assistant professor, Department of Pediatric Dentistry and Private Pediatric Dentistry Practice, Houston, Texas. Correspond with Dr. Flaitz at Catherine.M.Flaitz@uth.tmc.edu

Abstract

Transient lingual papillitis is an inflammatory disease of the tongue that can be very symptomatic in children. This case report describes the clinical features of transient lingual papillitis in a 7-year-old boy that was associated with a food allergy. The potential causes of this condition are reviewed and a differential diagnosis is provided. (Pediatr Dent 23:506-507, 2001)

Painful and recurrent lesions of the oral mucosa are especially problematic diseases in children because they interfere with normal everyday activities. Transient lingual papillitis (TLP) is an example of such a lesion that has not been well described in children. In contrast to common ulcerative lesions, this reactive disease may be very symptomatic, and yet, difficult to detect because of its small size and minimal surface changes. In addition, the specific cause for this tongue lesion is not known but a wide range of triggering factors has been implicated. This case report describes the clinical features of a transient lingual papillitis in a school-age child that was triggered by an undiagnosed food allergy.

Case history

An overweight 7-year-old Hispanic boy was referred for evaluation of a painful tongue that was first noticed 9 months ago. The symptoms coincided with the placement of a lower lingual holding arch but did not resolve once the space maintainer was removed. The tongue was only periodically tender but seemed to be aggravated by certain foods, in particular, fish and tomato sauce. The sores began as a single blister that quickly spread along the side of the tongue. Occasionally, both sides of the tongue were affected. When the lesions on the tongue developed, the child had difficulty speaking and eating and was unable to attend school because of the pain. The tongue was tender for about 2 days and then it subsided. The mother was aware that her child had benign migratory glossitis (BMG), which had been diagnosed at the age of 4, but it had never been symptomatic. Significant medical history included attention deficit disorder, which was being managed with methylphenidate, and bronchitis, for which he occasionally used albuterol.

Clinical examination revealed a linear aggregate of painful white papules on the right lateral border of the tongue. The area was mildly edematous and erythematous with scalloping on the affected lateral border. Except for a generalized white coating of the dorsal tongue, no other abnormalities were identified. The mother was informed that the child had a condition that was most consistent with transient lingual papillitis. It was explained that the exact cause of this lesion was unknown, but it might be associated with a hypersensitivity reaction or benign migratory glossitis. Because certain foods seemed to trigger the tongue lesions, the child was referred to a pediatrician for further evaluation. For palliative management, a 1:1 mixture of diphenhydramine and aluminum hydroxide/magnesium hydroxide suspension was prescribed. In addition, the child was scheduled for a follow-up appointment in 6 weeks.

During that period, the child was seen in the emergency room for generalized urticaria, wheezing, and a swollen, painful tongue. Intramuscular epinephrine and diphenhydramine were administered to the child for the acute management of the allergic reaction. The offending allergen was discovered to be fish, and the mother was advised to eliminate all types of fish from the child’s diet to prevent a recurrence. At the recall visit, focal, red, annular lesions of the dorsal tongue, consistent with BMG, were observed. However, since the elimination of fish from the child’s diet, the child had not experienced swelling or tenderness of the tongue.

Discussion

Transient lingual papillitis is a localized form of glossitis that is a relatively common, symptomatic condition. Infrequently described in the literature, it has been referred to as papillitis, hypertrophy of the fungiform papillae and eruptive familial lingual papillitis. The cause of this tongue lesion is uncertain but it has been associated with local irritation, stress, gastrointestinal upset, hormonal fluctuation, upper respiratory infection, viral infections, and sensitivity to foods, beverages, and oral hygiene products. Fractured teeth, oral appliances, and...
transient lingual papillitis, recurrent herpetic infections and aphthous ulcers are of sudden onset and may be triggered by trauma, stress, illness, and hormonal fluctuations. However, herpetic ulcers appear as vesicles that rupture, forming a coalescing, irregular to curvilinear ulcer that heals within 5 to 7 days. Typically, these viral-induced lesions have a predilection for the periosteum-bound mucosal sites and occur infrequently on the dorsal tongue. Although aphthous ulcers are common in children, the herpetiform variant is unusual for this age group. This condition presents as multiple punctate ulcers with a diffusely, erythematous mucosal background. These lesions have a predilection for the nonkeratinized mucosa, and therefore would favor the ventral tongue surface. This painful condition has a multifocal distribution, erupts into showers of lesions, and heals within 3 to 6 weeks. Of importance, the presence of frank ulcerations is most helpful in distinguishing these symptomatic and recurrent diseases from transient lingual papillitis.

**Pediatric significance**

Transient lingual papillitis is a tender to painful condition of the tongue that is frequently difficult to diagnose due to the subtle mucosal changes. Because these lesions may be challenging to detect, it is important not to dismiss the child as being a malingerer or an attention seeker. When these lesions recur frequently, it is necessary to determine if local or systemic causes are triggering the onset of this condition. Furthermore, it is important to assess if TLP is a consequence of recent orthodontic or restorative treatment or if it is occurring as a secondary lesion, in response to a generalized swelling of the tongue.

**References**