

Pigmented Fungiform Papillae of the Tongue in an Indian Male

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PRACTICE POINTS

- Pigmented fungiform papillae of the tongue are common lingual hyperpigmented macules in patients with skin of color.
- It is important to be aware of this benign entity to provide reassurance to patients and avoid unnecessary testing.

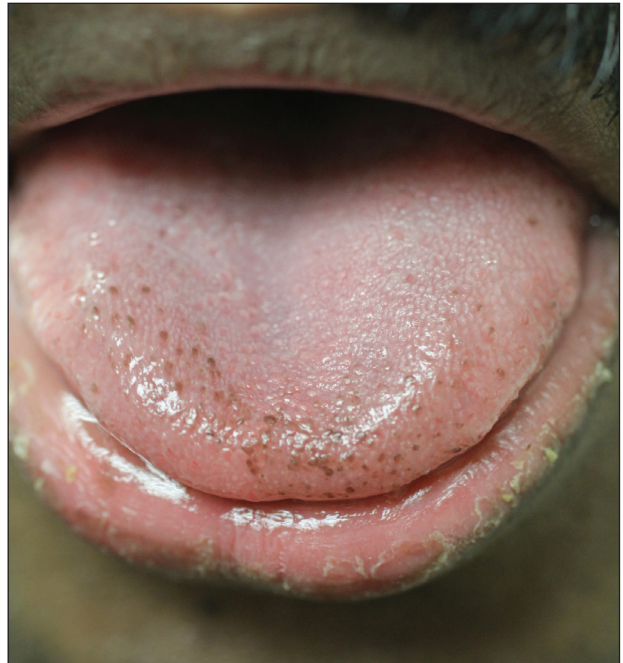
His medical and family history were otherwise noncontributory, and he denied a history of tobacco use.

Physical examination of the tongue and oral mucosa revealed numerous 0.5- to 1.0-mm brown papillae in a symmetric distribution, primarily located on the tip and lateral aspects of the tongue (Figure). No hyperpigmentation was present on the posterior aspect of the tongue or on any other mucosal surface. Routine laboratory values were notable for mild elevations in

To the Editor:

The tongue is composed of 4 different types of papillae: fungiform, foliate, circumvallate, and filiform. Fungiform papillae, primarily located on the tip and sides of the tongue, are mushroom-shaped epithelial elevations composed of taste buds at the upper surface overlying a core of connective tissue.¹ Foliate and circumvallate papillae are likewise associated with taste buds, while the filiform papillae are hypothesized to exclusively provide a frictional surface for proper food manipulation. Pigmented fungiform papillae of the tongue (PFPT) was first reported by Leonard² in 1905, who described discrete hyperpigmentation present only on the surface of fungiform papillae, mainly in black patients. Although they have been primarily described in black individuals, PFPT also has been occasionally reported in Asian and Middle Eastern individuals as well as Indian women.³⁻⁶

A 36-year-old Indian man initially presented to his primary care provider with brown discoloration of the dorsolateral aspects of the tongue that had been present since childhood. His primary care provider was concerned about a potential syndrome or systemic illness and referred the patient to dermatology for further evaluation. The patient denied any oral mucosal bleeding or discomfort, and a review of systems was unremarkable.



Pigmented fungiform papillae of the tongue. Hyperpigmented papillae located on the dorsolateral and frontal aspects of the tongue

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aspartate aminotransferase and alanine aminotransferase (47 U/L [reference range, 10–30 U/L] and 64 U/L [reference range, 10–40 U/L], respectively) and mild hyperbilirubinemia (total bilirubin, 1.8 mg/dL [reference range, 0.3–1.2 mg/dL]). A complete blood cell count and electrolytes were within reference range. Based on the clinical appearance of the lesions and their presence since childhood, the patient was diagnosed with PFPT. No intervention was undertaken, and the patient was reassured of the benign nature of the lesions.

Pigmented fungiform papillae of the tongue presents in 3 variants. The first variant involves hyperpigmentation of all fungiform papillae located on the lateral and frontal aspects of the tongue and is the most common manifestation of PFPT.³ Our patient falls into this category. The second and third variants involve the dorsal surface, with the former involving only a few fungiform papillae on the dorsal aspect of the tongue and the latter variant involving all papillae.³ In 1974, Holzwanger et al³ conducted a survey of 300 random individuals, finding that 30% of black women and 25% of black men had some hyperpigmentation of the tongue, while only 1 white individual demonstrated lingual pigmentation. The physiology of PFPT remains largely unknown. Dermoscopic evaluation often demonstrates elevations with pigmented borders in a rose petal shape.⁷ Histopathologic evaluation reveals melanophages without inflammation that are positive for melanin on Fontana-Masson silver staining but negative for iron on Prussian blue staining.⁸

Despite the fact that PFPT is not a rare condition, the diagnosis remains notably missing from many standard dermatology textbooks and online dermatology resources, making it a potentially overlooked clinical entity.^{4–6} The tongue has a number of normal variations that are unlikely to be fully appreciated or acknowledged

by dermatologists on routine physical examination but may cause distress to patients and raise concerns from primary care providers. Given that PFPT are benign, physicians should be aware of this diagnosis so as to provide reassurance to patients and avoid unnecessary testing. However, because the tongue can represent a harbinger of systemic disease, the differential diagnosis for the hyperpigmented lesions must always be considered, including Peutz-Jeghers syndrome, hemochromatosis, Addison disease, and Laugier-Hunziker syndrome (a rarer condition causing pigmented lesions on the lips, palate, and tongue), particularly if the hyperpigmented lesions extend beyond the fungiform papillae and do not fit into the 3 categories of PFPT.⁹

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