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## Pigmentation of the Fungiform Papillae of the Tongue: A Report of 2 Cases<sup>☆</sup>

### Pigmentación de las papilas fungiformes linguales. A propósito de dos casos

To the Editor:

Pigmented fungiform papillae of the tongue was first described over a century ago.<sup>1</sup> Although it seems fairly common in black individuals,<sup>2-4</sup> few textbooks of dermatology and oral pathology refer to it.<sup>5</sup> Some cases have been described in Japanese and Indian populations,<sup>5</sup> but it is considered rare in oriental races and very rare in white individuals.

We present 2 patients in Spain recently diagnosed with pigmented fungiform papillae of the tongue. The first patient was a 35-year-old black woman. Her medical history included positive human immunodeficiency virus serology detected in 2006 and a cerebral tuberculoma treated with antituberculous drugs in 2007; she is currently on treatment with tenofovir, emtricitabine and nevirapine. The patient attended for pigmentation on the dorsum of the tongue that she had noticed a few months earlier. Examination of the oral mucosa showed that the patient had pigmentation limited to the fungiform papillae on some areas of the dorsum of the tongue. The pigmented papillae were in groups of 15 to 20 papillae, giving the dorsum of the tongue a mottled appearance (fig. 1). The second patient was a 43-year-old indigenous South American woman who had undergone cesarean section 22 years earlier. She was not taking any medication on a regular basis. The patient had noticed pigmentation on the dorsum of the tongue a few months earlier. Examination of the oral mucosa showed pigmentation limited to the fungiform papillae of the dorsum of the tongue. The majority of the fungiform papillae were pigmented and were present in a diffuse, symmetrical pattern, predominantly on the tip and lateral aspects of the dorsum of the tongue (fig. 2). The fungiform papillae in the central area were not pigmented. She had no accompanying symptoms.

Pigmented fungiform papillae of the tongue was described in 1905 and was initially thought to be associated with hookworm

infestation.<sup>1</sup> Other authors have reported associations with dermatological disorders such as linear circumflex ichthyosis<sup>5</sup> and lichen planus<sup>6</sup>; an association with systemic diseases such as hemochromatosis, scleroderma, pernicious anemia, and



**Figure 1** Case 1. Pigmentation limited to the fungiform papillae of the tongue, with irregularly distributed macules on the dorsum and lateral surfaces of the tongue in an indigenous African woman.



**Figure 2** Case 2. Pigmented fungiform papillae of the tongue with a diffuse symmetrical pattern, predominantly affecting the lateral surfaces of the tongue in an indigenous South American woman.

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iron-deficiency anemia has also been described.<sup>7,8</sup> However, all of these presumed associations were based on individual cases and not on systematic study, and taking into account that a large study conducted in South Africa found pigmented fungiform papillae in 6% of males and 8% of women,<sup>2</sup> it is probable that they were merely coincidental. In a more recent study, 30% of black women and 25% of black men had pigmented fungiform papillae.<sup>4</sup>

From a clinical point of view, pigmented fungiform papillae usually develop in the second or third decade of life,<sup>4</sup> though they may begin in childhood. The condition has been observed in black and Japanese individuals,<sup>8</sup> and in Australian aborigines<sup>6</sup> and Indians.<sup>6</sup> Its incidence in those races is unknown but is considered substantially lower than in the black race.<sup>4,5,7,8</sup>

The pathogenesis of pigmented fungiform papillae is unknown. Based on the presence of pigmented fungiform papillae in a mother and daughter, Werchniack et al<sup>9</sup> suggested autosomal dominant inheritance; however, this had not been previously described or corroborated in other articles. The reason for the abnormalities being limited to the fungiform papillae also remains unknown. The histological features of pigmented fungiform papillae include numerous melanophages in the lamina propria of the papillae with no inflammatory infiltrate.<sup>4,9</sup> The pigment located within the melanophages stains positive for melanin with Fontana-Masson and negative for iron with Prussian blue.<sup>9</sup> The acquired nature of the lesions and the presence of melanophages suggests a transient period of inflammation, but the lack of inflammatory infiltrates is a histological marker of the condition.<sup>9</sup>

The differential diagnosis should include other causes of pigmentation of the oral mucosa such as hemochromatosis, pernicious anemia, amalgam tattoo, or Addison disease. However, a clear diagnosis can be reached in all those disorders on the basis either of the distribution and clinical characteristics of the pigmentation or the accompanying manifestations.

No effective treatment of pigmented fungiform papillae has been described,<sup>9</sup> although in 1 case associated with iron-deficiency anemia a moderate reduction in pigmentation was reported after treatment of the anemia.<sup>7</sup>

We describe the first case of pigmented fungiform papillae in an indigenous South American woman and we believe that this condition may be observed in all intensely pigmented races.

Given increasing migration into Europe, more cases will be seen; it is important to recognize pigmented fungiform papillae of the tongue to avoid incorrect diagnoses and avoid unnecessary additional tests.<sup>4,10</sup>

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## Delayed Foreign Body Reaction to Steel Wire Suture Resembling Basal Cell Carcinoma<sup>☆</sup>

### Reacción retardada a cuerpo extraño por alambre de acero inoxidable simulando un carcinoma basocelular

*To the Editor:*

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A foreign body is any live or inanimate material introduced in the human body, and the body responds by using its mechanisms of defense. Although a broad definition would also include microorganisms that elicit an immune response, foreign bodies are usually considered to be inorganic compounds or high-molecular-weight organic materials that resist destruction by inflammatory cells.<sup>1</sup> These substances can enter iatrogenically during surgical procedures, as is the case with foreign body reactions to suture material.<sup>2</sup>

We describe an 87-year-old man with a history of prostate cancer, atrial fibrillation, hypertension, and chronic bronchitis who had undergone surgery 30 years earlier for a malignant neoplastic process classified by the hospital at the time as nasal natural killer lymphoma; no further information was available. In March 2010 the patient consulted for an excrescent mass from 5 months previously that was present on the nasal bridge, on