

## Asymptomatic hyperpigmented lesions on tongue

A 34-year-old female presented with asymptomatic hyperpigmented lesions over her tongue since childhood. She denied any other skin lesion or systemic complaint. Family history was positive with similar lesions in her daughter.

Mucosal examination of mother revealed multiple discrete raised hyperpigmented lesions predominantly involving the tip and lateral tongue [Figure 1a]. On examination of daughter, the papillae appeared prominent but hyperpigmentation was restricted to few lesions [Figure 1b]. Skin, hair, nail,

other mucosae and systemic examination were normal. Maternal dermoscopy showed deeper pigmentation along the papillary borders with central fading, appearing like a rose petal-along with dichotomised vessels [Figure 2a], while hyperpigmentation was limited to one or two papillae in the daughter [Figure 2b]. On histology, basal keratinocytes showed melanin pigment and lamina propria contained melanophages and congested blood vessels [Figures 3a and 3b].

### Question

What is your diagnosis?



**Figure 1a:** A 34-year-old female having raised hyperpigmented lesions on tip and lateral aspect of tongue



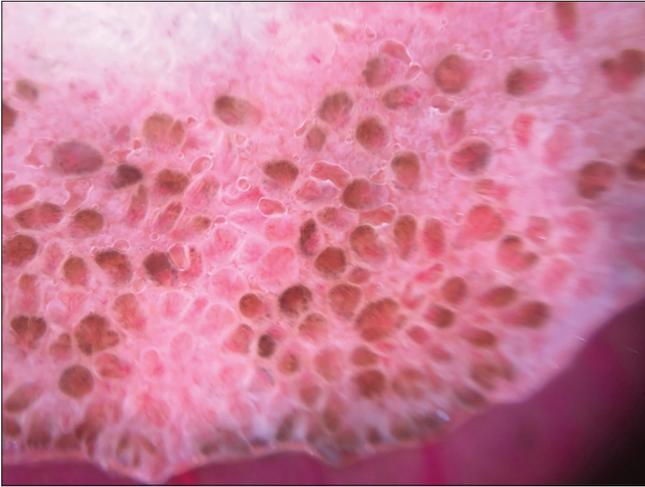
**Figure 1b:** 14-year-old female, daughter of the patient shown in Figure 1a, showing prominent papillae and few similar hyperpigmented lesions

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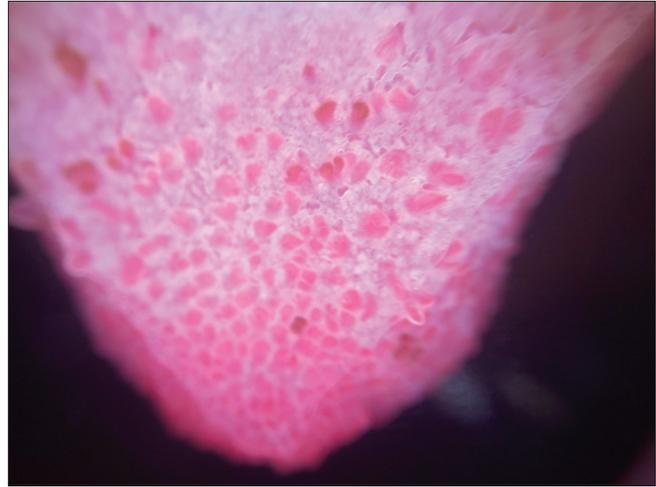
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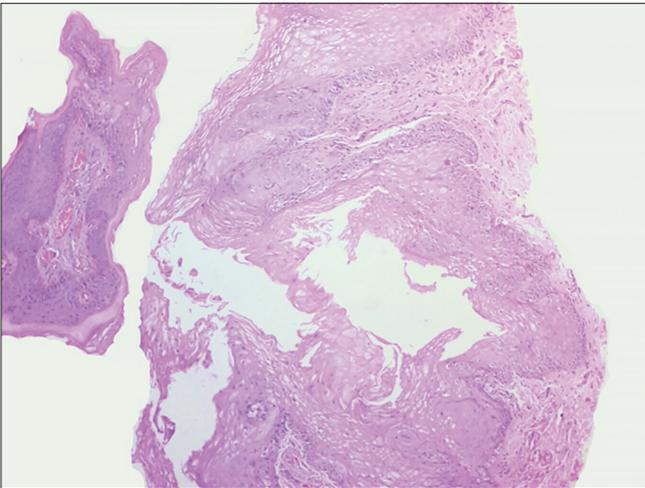
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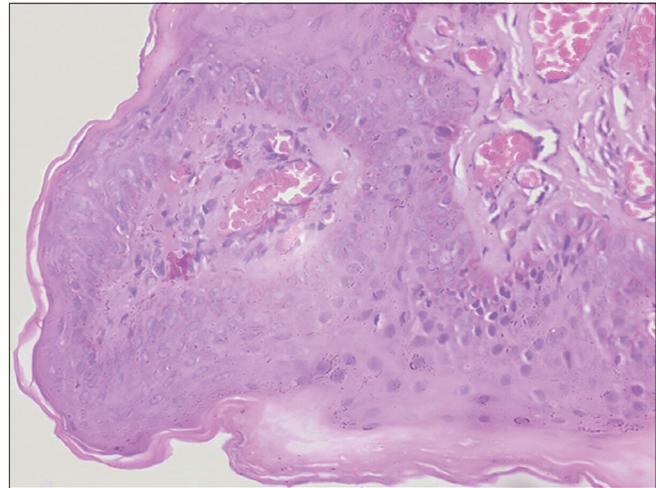
**Figure 2a:** Dermoscopy of the tongue in the mother (10×, non-polarised, Dermlite DL4)



**Figure 2b:** Dermoscopy of the tongue in the daughter (10×, non-polarised, Dermlite DL4)



**Figure 3a:** Histopathology (haematoxylin-eosin, ×100)



**Figure 3b:** Histopathology (haematoxylin-eosin, ×400)

**Answer**

Pigmented fungiform papillae of the tongue.

**Discussion**

The tongue contains four types of papillae – filiform, fungiform, circumvallate and foliate. Fungiform papillae are mushroom-shaped projections on dorsolateral and tip of the tongue containing taste buds for sweet and sour sensation.

Pigmented fungiform papillae, first reported by Leonard in 1905, are characterised by asymptomatic discrete hyperpigmentation confined to fungiform papillae of tongue.

Pathogenesis is unclear with multiple reported associations such as linear circumflex ichthyosis and lichen planus, and systemic diseases such as hemochromatosis, scleroderma, pernicious anaemia and iron deficiency anemia.<sup>1</sup> An autosomal dominant inheritance has been suggested due to simultaneous occurrence in successive generations.<sup>2</sup>

This condition has three clinical types. The first type involves all fungiform papillae on the anterolateral side or tip of tongue, the second type involves 3-7 fungiform papillae on the dorsal surface of tongue while the third type involves all fungiform papillae on the dorsal tongue.

Limited dermoscopic studies have revealed papillae with pigmented borders giving a ‘rose petals’ appearance.<sup>3</sup> Linear, branched vessels are usually visible in oral mucosa. The histologic hallmark is prominent melanophages in the connective tissue without abnormal epidermal melanogenesis and absence of inflammation.<sup>4</sup>

Differential diagnoses include amalgam tattoo, Addison disease, Peutz-Jeghers syndrome, hemochromatosis,

Laugier–Hunziker syndrome melanocytic nevus, melanoma and black hairy tongue.

This condition is usually non-progressive, and no effective treatment is available.

**Declaration of patient consent**

The patient’s consent is not required as the patient’s identity is not disclosed or compromised.

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Nil.

**Conflicts of interest**

There are no conflicts of interest.

***Niti Khunger, Niharika Dhatarwal, Chetan Patidar***

Department of Dermatology and STD, Vardhman Mahavir Medical College and Safdarjung Hospital, New Delhi, India

**Corresponding author:**

Dr. Niharika Dhatarwal,  
Department of Dermatology and STD, Vardhman Mahavir Medical College and Safdarjung Hospital, New Delhi, India.  
niharika.pgirtk@gmail.com

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