

## Spot the Diagnosis

# Circumscribed pink-white lingual papule in a child

Keshavmurthy A. Adya<sup>1</sup>, Arun C. Inamadar<sup>1</sup>

<sup>1</sup>Department of Dermatology, Venereology and Leprosy, Shri B. M. Patil Medical College Hospital and Research Centre, BLDE (Deemed to be University), Vijayapur, Karnataka, India.



**\*Corresponding author:**

Arun C. Inamadar,  
 Department of Dermatology,  
 Venereology and Leprosy,  
 Shri B. M. Patil Medical  
 College Hospital and Research  
 Centre, BLDE (Deemed to  
 be University), Vijayapur,  
 Karnataka, India.

aruninamadar@gmail.com

Received: 12 June 2024

Accepted: 29 June 2024

Published: 24 July 2024

**DOI**

10.25259/CSDM\_88\_2024

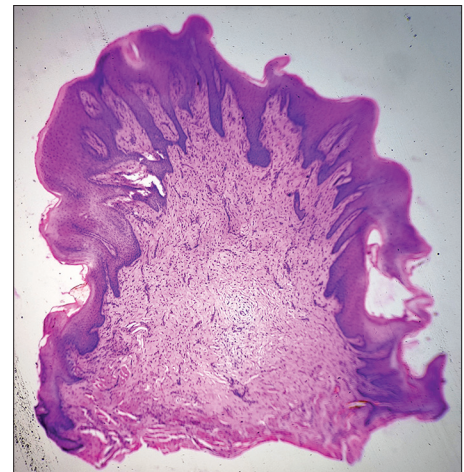
**Quick Response Code:**



A 10-year-old girl presented with a gradually enlarging, asymptomatic fleshy growth on her tongue from the past three months. There was neither history of any trauma preceding the lesion, nor was the patient on any dental prosthesis. Examination revealed a solitary pinkish-white, soft-to-firm, non-tender, and dome-shaped circumscribed papule measuring about 1 × 1 cm on the right side of the dorsal tongue [Figure 1]. The rest of the oral cavity and cutaneous examination were unremarkable. The lesion was completely excised under local anesthesia, and histopathology revealed acanthosis and papillomatosis with elongated and fused rete ridges. Dermis showed bland nodular fibrous proliferation, along with coarse collagen bundles and scant chronic inflammatory cell infiltrate [Figures 2 and 3].



**Figure 1:** A solitary pinkish-white papule on the tongue.



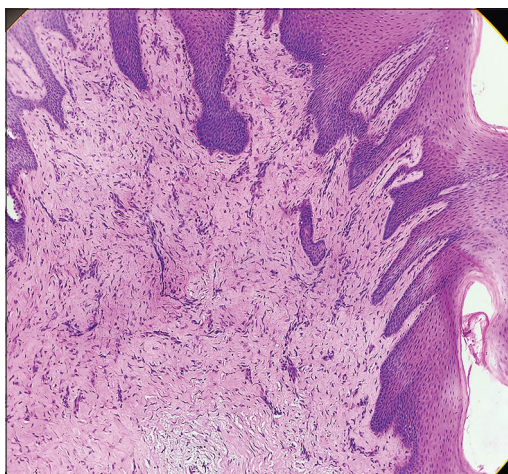
**Figure 2:** Epidermal hyperplasia characterized by acanthosis, papillomatosis, and elongated rete ridges together with dermal nodular fibroblast hyperplasia and dense collagen [H and E, ×40].

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 License, which allows others to remix, transform, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

©2024 Published by Scientific Scholar on behalf of CosmoDerma

**Table 1:** Differential diagnosis of oral cavity fibromas.

Fibroma Type	Clinical Features	Histopathologic Features
Giant cell fibroma	A variant of common fibroma situated commonly on the tongue or the gums and exhibiting a papillary aspect. When present on the inner side of the gingival, it is termed retrocuspid papilla	Some of the fibroblasts comprising the tumor are multinucleated and the epidermis is thinner with elongated rete ridges
Epulis fissuratum	Papillary mucosal folds with central fissuring due to ill-fitting dentures commonly involving the buccal and labial sulci	Dermal fibrosis and scattered vessels are associated with a prominent epithelial hyperplasia
Peripheral ossifying fibroma	Sessile lobular reactive soft-tissue overgrowth arising from periodontal ligament or periosteum and involving the gingival papillae between the teeth. Common in young females	Fibroblast proliferation is associated with osteoid or cementum deposition
Peripheral odontogenic fibroma	Nodular or lobulated firm growth involving the gums often in the vicinity of and displacing the teeth	Fibroblastic proliferation is associated with focal clumps or strands of odontogenic epithelium
Drug-induced fibrous hyperplasia	Diffuse gingival fibroplasia associated commonly with Dilantin, calcium channel blockers and cyclosporin	Fibrous tissue proliferation is associated with granulation tissue and inflammation
Inflammatory papillary hyperplasia of the palate	Similar to epulis fissuratum but involving the palatal area near the ill-fitting dentures	Similar to epulis fissuratum
Oral elastofibroma	Rare, usually affects elderly females and commonly involves upper back region. Oral cavity involvement presents as asymptomatic submucosal nodules commonly in the hard palate and floor of the mouth	The tumor is composed of collagen and thickened elastic fibers
Sclerotic fibroma	Uncommon benign fibrous tumor that may be sporadic or associated with Cowden syndrome. Primarily a cutaneous tumor, oral cavity involvement may be seen affecting buccal mucosa and inner side of lips	The tumor is composed of dense collagen and scant fibroblasts in storiform pattern that are CD34 and vimentin positive



**Figure 3:** High-power view showing mature spindle-shaped fibroblasts, thickened collagen bundles, a few scattered blood vessels, and mild inflammatory infiltrate [H and E, ×100].

## WHAT IS THE DIAGNOSIS?

Answer:

Irritation fibroma.

## DISCUSSION

Irritation fibroma (fibroepithelial polyp, bite fibroma or traumatic fibroma) is a relatively common benign oral cavity lesion, which is essentially a reactive focal fibrous hyperplasia to chronic irritation. The underlying cause of irritation may be dental prosthesis, mal-aligned teeth or habitual cheek or lip biting. Although adults are frequently affected, irritation fibroma can occur at any age with no specific gender or racial predilection. The typical clinical presentation is that of a solitary, circumscribed, dome-shaped sessile or pedunculated, and soft-to-firm non-tender papule or nodule. In addition to the lingual surface, the inner aspects of the lips and buccal mucosa are also frequently affected. Histologically, irritation fibroma is characterized by mature fibroblast proliferation, along with thick collagen bundles and scattered blood vessels. There is no/minimal inflammatory infiltrate and occasional focal mucinous degeneration. Overlying epithelium is often hyperplastic reflecting the chronic irritation. Simple excision is usually curative as the condition neither recurs nor undergoes malignant transformation.<sup>[1-3]</sup> While irritation fibroma is mostly solitary, multiple oral cavity fibromas may be a part of Cowden syndrome, tuberous sclerosis complex, and familial fibromatosis syndromes. Other fibromas involving the oral cavity are outlined in Table 1.<sup>[2-5]</sup>

### **Ethical approval**

The Institutional Review Board approval is not required.

### **Declaration of patient consent**

The authors certify that they have obtained all appropriate patient consent.

### **Financial support and sponsorship**

Nil.

### **Conflicts of interest**

There are no conflicts of interest.

### **Use of artificial intelligence (AI)-assisted technology for manuscript preparation**

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

### **REFERENCES**

1. Jiang M, Bu W, Chen X, Gu H. A case of irritation fibroma. *Postepy Dermatol Alergol* 2019;36:125-6.
2. Dyll-Smith D. Oral irritated fibroma. *DermNet™*; 2010. Available from: <https://dermnetnz.org/topics/oral-irritated-fibroma> [Last accessed on 2024 Jun 12].
3. Lerman MA, Woo SB. Disorders of the oral mucosa. In: Barnhill RL, Crowson AN, Magro CM, Pipekorn MW, editors. *Dermatopathology*. 3<sup>rd</sup> ed. New York: McGraw Hill Companies, Inc.; 2010. p. 1002-21.
4. Buchner A, Merrell PW, Carpenter WM. Relative frequency of peripheral odontogenic tumors: A study of 45 new cases and comparison with studies from the literature. *J Oral Pathol Med* 2006;35:385-91.
5. Lederman DA, Fornatora ML, Idahosa CN. *Oral fibromas and fibromatoses*. New York: Medscape; 2018. Available from: <https://emedicine.medscape.com/article/1080948-overview#a2> [Last accessed on 2024 Jun 12].

**How to cite this article:** Adya KA, Inamadar AC. Circumscribed pink-white lingual papule in a child. *CosmoDerma*. 2024;4:78. doi: 10.25259/CSDM\_88\_2024