

## Large irritation fibroma of palate – a rare presentation

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**Abstract** A 65-year-old lady presented with large, asymptomatic normal coloured pedunculated growth of 3.5 centimeter in length over hard palate since last two years. Patient had a history of betel leaf and nut ingestion with other irritant agents for several decades. All hematological investigations were within normal limit but radiographic imaging revealed soft tissue shadow. After excision, histopathological examination revealed bundles of spindle cells producing extensive collagen in both radiating and circular pattern in lower dermis with focal pseudoepitheliomatous hyperplasia in mucosal epithelium and chronic inflammatory infiltrates in submucosa. All these features were consistent with irritation fibroma with unusual size. It was located in palate which was very unusual location.

**Key words**

Irritation fibroma, hard palate, large size.

### Introduction

Fibroma is the most common tumour of oral cavity, but it represents most likely as reactive hyperplasia of fibrous connective tissue in response to local trauma.<sup>1</sup> This local trauma may be single episode or repeated less severe episodes. Chronic inflammation, infection or irritation may also cause fibroma. Apart from commonly occurring irritation or traumatic oral fibroma (reactive hyperplasia), there is another type of fibroma, called true fibroma. True fibroma of oral and maxillofacial areas occurs infrequently.<sup>2</sup> The true fibroma is a continuously enlarging new growth not necessarily arising at a site of potential trauma.<sup>3</sup> A fibroma may occur at any oral site but is seen most often on the buccal mucosa along the plane of dental occlusion. At times, it may also occur on the

gingiva or tongue.<sup>4</sup> It is found in 1.2% of adults and has a 66% female predilection. It is usually solitary and seldom larger than 1.5 centimeter.<sup>5</sup> One retrospective analysis of gingival biopsied lesions revealed that the occurrence of irritation fibromas among the South Indian population was 39.1%.<sup>6</sup> These benign oral lesions are usually asymptomatic, sessile or pedunculated firm mass. The fibromas are usually found in between third and sixth decade of life.

### Case Report

A sixty five-year-old lady presented with a large swelling with ulceration over palate since last two years (**Figure 1**). She had no specific symptoms except mild burning sensation over ulcerated areas. She had a history of betel and betel nut chewing with tobacco for a few decades. On examination, the swelling had normal colour of oral mucosa with smooth surface and two areas of ulceration. It was firm in consistency, movable in all directions and almost covered full length and curvature of hard

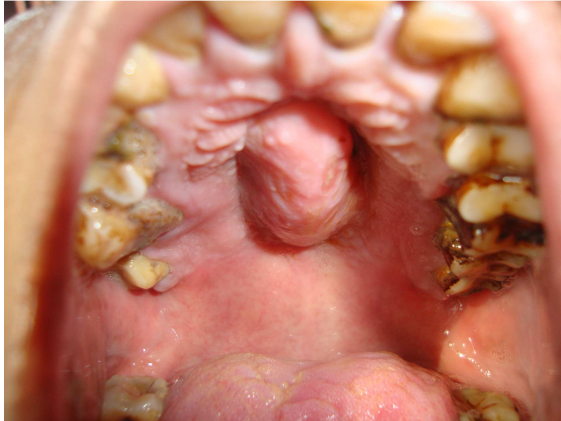
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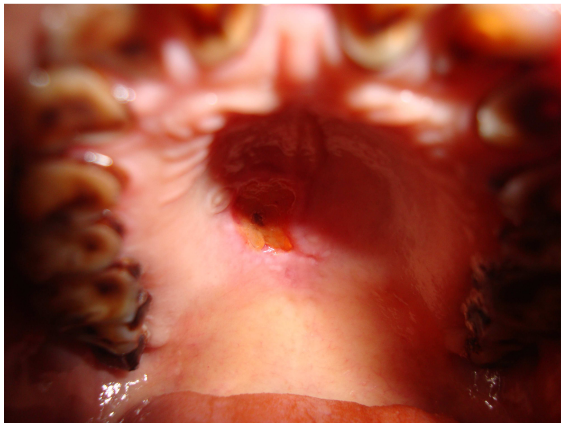
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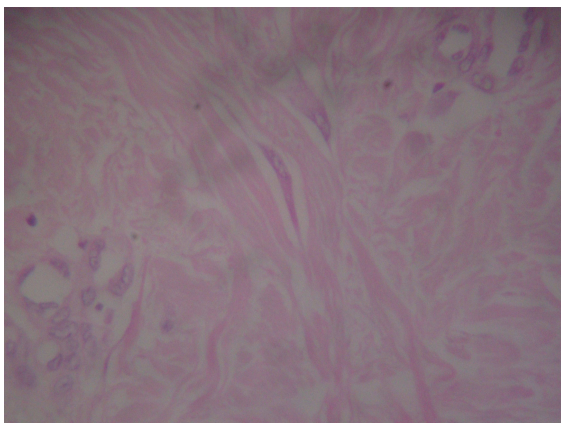
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**Figure 1** Irritation fibroma of palate.

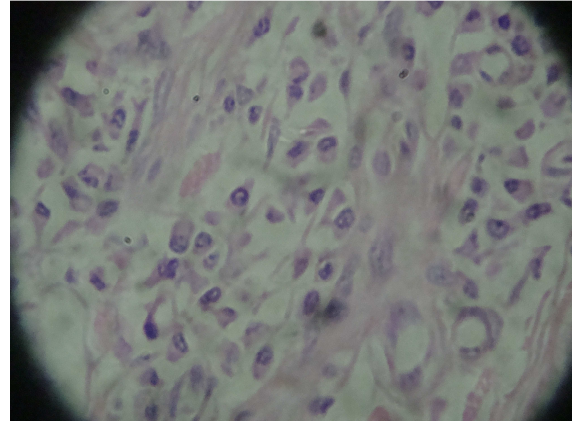


**Figure 2** Following excision, site of attachment of pedicle seen.

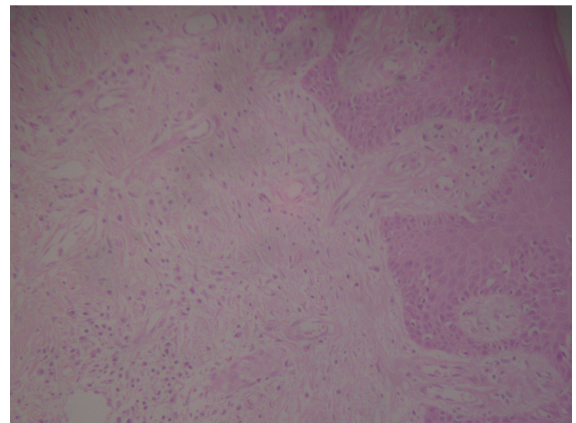


**Figure 3** HPE of irritation fibroma shows radiating and circular pattern of collagen (H & E, X 160).

palate. The swelling was 3.5cm.in length, 2 cm. in breadth and 1.25 cm. in thickness. Though the swelling seemed sessile, yet it was pedunculated, clearly visualized by pulling it. Its



**Figure 4** HPE of irritation fibroma shows plenty of plasma cells, fibroblasts, and newly formed collagen (H & E, X 320).



**Figure 5** HPE of irritation fibroma shows chronic inflammatory cells mainly plasma cells (H & E, X 80).

stalk was attached at the right palatal arch at the line between second premolar teeth, beautifully seen after excision (**Figure 2**). Her oral hygiene was very poor. Routine investigations for excision were normal. Radiological examination of oral cavity revealed soft tissue shadow. Histopathological examination revealed mucosal tissue comprising tumour composed of bundles of spindle cells producing extensive collagen in radiating and circular patterns (**Figure 3**). The overlying mucosal epithelium showed focal pseudoepitheliomatous hyperplasia with moderate chronic inflammatory infiltrates, predominantly plasma cells in submucosa (**Figure 4, 5**). The spindle cells of the tumour

showed no atypia or mitosis. All these pictures were consistent with irritation fibroma. The huge size of this irritation fibroma in unusual palatal location is a very rare presentation.

### **Discussion**

Fibroma is the most common tumor of oral cavity, that frequently affects the buccal mucosa where each usually due to repeated trauma. However, palate is an unusual site of chronic irritation and trauma. Unhealthy harmful habits cause alterations in bone growth, dental malposition and dentofacial abnormalities.<sup>7</sup> Non-nutritive sucking habits ensure a feeling of warmth, sense of security and also alteration of oral mucosa which ultimately leads to various deformities.<sup>8</sup> In our case, the etiological factors were both chronic irritation by continuous betel and betel-nut chewing with tobacco and repeated low grade trauma by pushing of palate upward with tongue. So continuous irritation and low-grade trauma cause large fibroma because there is a lot of space to accommodate this asymptomatic tumour. According to Barker and Lucas, irritation fibroma is to be differentiated from true fibroma by pattern of collagen arrangement (radiating and circular pattern in irritation fibroma).<sup>9</sup> This pedunculated and unencapsulated lesion with pseudoepitheliomatous hyperplasia, chronic inflammatory infiltrate mainly plasma cells in submucosa and typical collagen pattern favours the diagnosis of irritation fibroma than true fibroma.<sup>10</sup>

This large palatal fibroma should be differentiated from other palatal swellings on both clinical and/or histopathological grounds. Torus palatinus in adults looks very much similar to our case but torus is a developmental anomaly of bony overgrowth which can be seen by X-ray or other imaging. Dermoid cyst is also a congenital condition that appears in areas of bony fusion. It is a cystic swelling and extremely rare in oral

cavity. Necrotizing sialometaplasia is a condition which mostly arises from palatal minor salivary glands. Histopathology of this lesion shows lobar necrosis and sialadenitis mixed with squamous metaplasia of excretory ducts and acini. Pyogenic granuloma (PG) is another condition which can occur in any sites of oral mucosa. Usual character of PG is bleeding on trauma but longlasting untreated case becomes fibrosed and bleeding may not occur. In fibrotic PG, residual granulation tissue usually persists. Squamous papillomas are asymptomatic, soft pedunculated masses with numerous finger-like projections at surface. Granular cell tumour may arise in palate and it is a painless, sessile growth. On histology, tumour cells are large, polygonal, oval or bipolar with abundant bipolar eosinophilic cytoplasm. Oral lipoma, neurofibroma and malignant lesions may be found in palate and these can be easily differentiated on histopathology. Ameloblastoma, an odontogenic tumour, can be readily differentiated by radiography. We have reported this irritation fibroma because of its unusual size and location.

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