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## **CASE REPORT**

### **FOCAL FIBROUS HYPERPLASIA: A CASE REPORT**

Asaf Aboobakker, \*Laxmikanth Chatra, Prashanth Shenai, Veena KM, Prasanna Kumar Rao,  
Rachana V Prabhu, TashikaKushraj and Prathima Shetty

Department of Oral Medicine and Radiology, Yenepoya Dental College,  
Yenepoya University, Mangalore, Karnataka, India

\*Corresponding author: Professor Laxmikanth Chatra

Department of Oral Medicine and Radiology Yenepoya Dental College Yenepoya University Deralakatte  
Post, Deralakatte, Mangalore PIN– 575018, Karnataka, India [ydcomr@gmail.com](mailto:ydcomr@gmail.com)

Running Title: Fibrous Hyperplasia

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#### ABSTRACT:

Fibromas are the benign tumours that are most commonly encountered among the oral soft tissue lesions. They are mostly seen as a protective mechanism of the mucosa towards chronic irritation. They present clinically as a round or ovoid, soft to firm in consistency, exophytic growth, mostly pale pink in colour with smooth surface. These lesions are asymptomatic and do not require any treatment until bothersome to the patient. The clinical features, histopathological features and treatment of an irritational fibroma occurring on the hard palate of a 32 year old female are presented.

**KEYWORDS:** *Irritational Fibroma, Hard palate, Chronic irritation.*

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#### INTRODUCTION:

Fibroma commonly known as Traumatic fibroma, Irritational fibroma or Focal fibrous hyperplasia is a sub mucosal response to some chronic irritation or trauma inflicted from the prostheses or adjacent tooth [1]. It was first reported as fibrous polyp and polypus in 1846 [1]. It is usually caused by irritants such as calculi, overhanging margins, restorations, foreign bodies, chronic

biting, margins of caries, sharp spicules of bones and over extended borders of appliances [2]. This article discusses a case report of Fibroma located on the hard palate. The clinical features, histopathological features, various excisional modalities are also discussed. The ethical clearance for the publication of this case report was obtained from the university ethics committee.

**CASE REPORT:**

A 32 year old female patient visited the dental OPD with the chief complaint of spacing between anterior teeth since one year. She gave the history that she noticed the space increasing since one year and Aesthetic concern. No associated symptoms were reported. She was in apparent good health and had undergone uneventful extraction of mandibular left second molar ten years back. She did not have any deleterious habits and cleaned her teeth once daily with tooth brush and tooth paste. She was predominantly a non – vegetarian.

On general physical examination, she was conscious and co – operative, moderately built and nourished, well oriented in time, place and person. All her vital signs were within the normal limits. There were no signs of pallor, icterus, cyanosis, clubbing and oedema. On extra oral examination, she had incompetent lips, with convex profile. No gross asymmetry of the face was seen. Her ears and nose showed no abnormality except for her squint eyes. There was no abnormality detected in the Temporomandibular Joint (TMJ) and lymph node examination. On intra oral examination of the soft tissues, the buccal mucosa, labial mucosa, tongue, floor of the mouth, showed no abnormalities except for palate which showed a growth. Examination of the gingival status revealed her oral hygiene status to be fair with moderate stains and calculus deposits. On hard tissue examination maxillary right and left third

molar was decayed, fractured restoration in relation to mandibular right first molar and missing mandibular left first and second molar were evident.

On local examination, on inspection a solitary, nodular swelling of size 0.5 cm in diameter was seen on the right side of the hard palate in relation to maxillary right second premolar region (Fig.1). The surface of the swelling appears smooth and colour same as that of adjacent normal mucosa. Margins appear to be smooth. The lesion appears pedunculated and raised above the mucosal surface. No ulcer, sinus, discharge evident. Inspectory finding regarding the site, size and location of the lesion were confirmed on palpation. The lesion was non-tender, soft to firm in consistency, non-fluctuant, non-compressible, non-reducible, non-pulsatile, and non-translucent. The adjacent mucosa was normal.

Based on the clinical features a provisional diagnosis of Midline Diastema between maxillary central incisors, chronic generalized gingivitis, dental caries in relation to maxillary right and left third molar, fractured restoration of mandibular right first molar, partially edentulous area in relation to mandibular left first and second molar, irritational fibroma on the hard palate was made. Excision of the lesion was performed and the tissue was sent for histopathological examination.

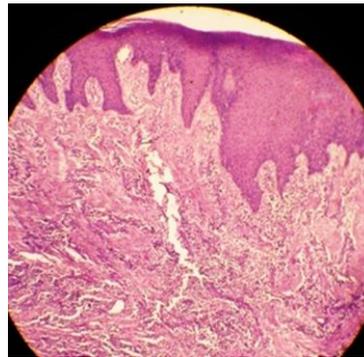
A histopathological report of atrophic parakeratinized stratified squamous epithelium

with short blunt rete ridges. Underlying connective tissue found to be densely collagenous showing wavy bundles of collagen fibres and a few Red Blood Cells (RBC) filled blood vessels (Fig.2). Based on the clinical features and histopathological features a final

diagnosis of fibroma was made. The patient was further referred for Oral prophylaxis, Restoration of 18, 28 and 46; orthodontic correction for midline diastema and prosthetic rehabilitation of the missing teeth. Patient was recalled and review was done.



**Figure 1:** Location and size of the lesion.



**Figure 2:** Microscopic findings of the excised mass

### DISCUSSION:

Fibroma, oral fibroma or fibromatosis fibroma is the most commonly occurring soft tissue tumour in the oral mucosa [3]. It is of connective tissue origin. Although, the clinical appearance and pathogenesis of this entity is described better by the term focal fibrous hyperplasia, it is not commonly used [3]. In a study conducted on 300 benign tumors on the oral cavity 160 (53.3%) were diagnosed as Fibroma [4]. Of the 160 cases of Fibroma, 105 (65.6%) were females and 55 (34.4%) were males. It is a reactive hyperplasia of the connective tissue rather than a neoplasm.

Clinically, this entity is seen to have a higher incidence in females than males in the third to

sixth decade of their life [5]. In our case the patient was female in her 4th decade. It is seen more commonly occurring on the buccal mucosa along the occlusal line followed by labial mucosa, gingiva and palate. Biting of the cheek is considered to be one of the reasons for the occurrence of fibroma along the occlusal line [6]. But in the present case it was seen on the hard palate which is rare.

Fibroma lesion presents as a round to ovoid asymptomatic nodule which has a smooth texture and usually pale pink in colour. It may also appear white due to hyperkeratosis due to continued irritation. It is firm in consistency and usually pedunculated, although sessile cases have also been reported. They present as

asymptomatic mass unless traumatized [4]. In the present case, the clinical features were similar except for the hyperkeratosis.

Histopathologically, fibroma show masses of fibrous connective tissue which is lined by stratified squamous epithelium. Underlying connective tissue is usually dense and collagenized and these collagen bundles are seen arranged in radiating, circular or haphazard fashion [7]. Hyperkeratosis may be seen associated from secondary trauma. The connective tissue also shows few blood vessels and few inflammatory cells mostly lymphocytes and plasma cells which are usually seen beneath the epithelial cells [8]. Similar features were also seen in our case.

Mostly these lesions do not require any treatment unless it becomes symptomatic due to trauma or interferes with the occlusion. Excision of the lesion is the treatment of choice [9]. Recently, Soft tissue lasers are also being used for the excision of the fibromas [10]. In a study, excision was done using Nd: YAP laser and Photo-biomodulation using In-Ga-AIP which showed safe, quick procedure and better healing than conventional surgery [10]. However, in this case conventional excision of the lesion was done using scalpel. Recurrence of the lesion is rare [8].

#### **CONCLUSION:**

Although Fibroma is a common entity among the benign tumors of the oral cavity, occurrence in the hard palate is rare. In addition, these lesions tend to mimic the clinically pyogenic granuloma

and Peripheral ossifying fibroma especially when occurring on the gingiva. Thus, proper diagnosis, management and excision of these lesions along with histopathological examination are of utmost importance due to the occurrence and similar presentations of neoplastic growths though the incidence is rare.

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