



## PEDIATRIC PALATAL FOCAL FIBROUS HYPERPLASIA

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**ABSTRACT** Fibroma is a common soft tissue lesion of the oral cavity, however, the origin of fibroma in a palatal region is rare. It may arise as a hyperplastic inflammatory reaction in response to a local inciting agent, inflammatory source, or chronic traumatic injury. These masses represent hyperplasia instead of true neoplasm. We present a case of fibroma present on the palatal region in an 8-year-old child diagnosed based on clinical, radiological, and histological features.

**KEYWORDS :** Palatal Fibroma, Thumb Sucking, Irritational Fibroma, Palatal Growth, Gender Dependence.

**INTRODUCTION**

Focal fibrous hyperplasia is the most common benign lesion of the oral cavity. Buccal and labial mucosa and lateral tongue are common sites of origin of fibroma in the oral cavity. (1) A fibroma is defined as a focus of hyperplastic fibrous connective tissue, a reactive response to local irritation or masticatory trauma (2). The size of fibromas usually small and rarely more than 1.0 cm (3).

**CASE REPORT**

An 8-year-old boy came to our hospital with a chief problem of firm swelling in the midpalatal area since 2 years. The patient also had a thumb-sucking habit. His past medical, dental, drug and family history were not significant.

On intraoral examination, an oval smooth-surfaced, and submucosal swelling was seen on the right-side palatal area extending mediolaterally from the mid-palatine raphe to palatal rugae anteriorly, measuring 1.2cm x 1cm. The swelling was firm, smooth margin, non-tender, nonpulsatile, non-compressible, and non-fluctuant, connected through a peduncle with the mucosa of the palate. The overlying mucosa was normal, without any sign of ulcer or color change. (Fig.1)

There was absence of anterior tooth mobility or dental caries. Extraoral cervical lymph nodes were nonpalpable and non-tender. Orthopantomogram and Occlusal radiograph (Fig 2) was showing normal bony architecture. Additionally, the patient's routine blood investigations were normal. After taking the consent of the parents of the patient the mass was excised completely under local anesthesia and the excised tissue was sent for histopathological examination. (Fig 3)

The specimen had keratinized stratified squamous epithelium with dense collagenous connective tissue component. Histologic features were harmonious with features of the fibroma. The patient reported good healing without recurrence in 6 months follow-up.



**Figure 1: Preoperative view of fibroma on the right side of palate.**



**Figure 2. Occlusal radiograph**



**Figure 3: Excised lesion from palate**

**DISCUSSION**

Fibromas are benign neoplasms consisting of fibrous connective tissue arising from mesenchymal cells. These lesions are asymptomatic and frequently located on the buccal mucosa. Mostly occur in 30- 39 years of age (4). Fibromas are clinically present firm, smooth surface, sessile, or pedunculated growth (2). Local trauma and irritation are the major contributing factors for the origin of fibroma, however, the palate is an uncommon site for these contributing factors.

Abnormal and detrimental habits cause changes in bone growth, dental malalignment, and dentofacial abnormalities. In our case, the only suspected etiological factor of local irritation was thumb sucking. However, the patient didn't give a history of any ulceration before the growth formation. (5)

Most fibrous hyperplasia are composed of loose collagen and they are soft on palpation, for example, denture-induced fibrous hyperplasia and traumatic fibromas of the tongue, labial, and buccal mucosae. These hyperplasia evolve as a consequence of irritation to the mucosal tissues by a dental appliance or sometimes due to the consequence of biting. (6) In the present case thumb sucking habit especially at night creates constant pressure on the mucosa of the palate that causes injury to palatal tissue.

Size is also a criterion considered, the majority of fibroma persist small in size, and lesions that are more than 1 cm in diameter are rare. In the presenting case, the lesion is approximately 1 cm in diameter. (2) 71% of fibromas of the oral cavity occur on buccal, labial, and lateral tongue regions. The growth may be pedunculated or sessile and infrequently exceed 1.5 cm in size.

Fibroma is usually asymptomatic, non-movable firm mass with normal surface mucosa, if there is repeated trauma there can be ulceration on the surface. When we compare gender-wise, 60% of cases are seen in females and are rarely seen up to 10 yrs of age. (1) In our case, there is a male patient which is running in the first decade of life with an asymptomatic palatal lesion.

### CONCLUSION

Traumatic fibroma is a benign exophytic lesion, grows in response to tissue injury. It is among the most common benign reactive lesions. The ideal key for management in pediatric patients is early education and eradication of harmful habits followed by surgical excision and histopathological confirmation to minimize the dentoalveolar complication

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