

True Fibroma of Palate (A Case Report)

Dr Prahant Kumar Chnadan¹, Dr G V R Reddy², Dr Ena Mathur³,
Dr Shreeyam Mohapatra⁴, Dr Rahul Motwani⁵

¹. PG 3rd Year, Department Of Oral Medicine And Radiology, (Rajasthan Dental College And Hospital)

². HOD, Department Of Oral Medicine And Radiology, (Rajasthan Dental College And Hospital)

³. READER, Department Of Oral Medicine And Radiology, (Rajasthan Dental College And Hospital)

⁴. SR. LECTURER Department Of Oral Medicine And Radiology, VSS Medical College, Burla

⁵. PG 3RD Year Department Of Orthodontics And Dentofacial Orthopedics, (Rajasthan Dental College And Hospital)

Abstract: Benign tumors of fibrous connective tissue are frequently seen in the oral cavity. Majority of the fibromas occurring in the oral cavity are reactive in nature and represent inflammatory hyperplasia and are not a true neoplasia. True fibroma of the oral mucosa is an extremely rare benign neoplasm, only few cases have been reported in the literature so far and we report such a rare case of true fibroma of the palate in a 35 year old male patient.

Key Words: true fibroma, palate, 810nm diode laser

I. Introduction

Fibroma is a benign tumor of fibrous connective tissue are frequently seen in the oral cavity.³ They represent inflammatory rather than neoplastic conditions. It is also known as irritational fibroma, traumatic fibroma, or fibrous hyperplasia. The lesion are most often sessile or slightly pedunculated with a smooth contour, pale pink and firm in consistency occur on gingiva, tongue, buccal mucosa and palate.² True fibroma of the oral mucosa is an extremely rare benign neoplasm. Barker and Lucas¹⁰ were the first to establish the histologic criteria in relation to two cases. Since , then only few cases have been reported in the literature, we report such a rare case of true fibroma on the palate.

II. Case Report

A 35 year old male patient reported to the department of oral medicine and radiology with a complaint of lump behind upper front teeth and is present since one year (fig 1). It was interfering with chewing and felt uncomfortable. Clinical examination revealed a grayish coloured exophytic growth which was irregular in shape with a sessile base. It was present on the hard palate in the midline just about 2 cms from the central incisors and was measuring about (1.5x1.5)cms in diameter (fig 2). On palpation it was slightly pedunculated and non-tender. The lesion was not fluctuant , did not blanch on pressure and rubbery in consistency. On the basis of history and clinical findings, it was diagnosed as fibroma. Peripheral giant cell granuloma, benign minor salivary gland tumor and neurofibroma were considered under differential diagnosis. Routine blood investigation were with in normal limits. Occlusal radiograph revealed no calcification (fig 3). Under local anaesthesia, the mass was excised completely using 810 nm diode laser. The removed mass and the adjacent periosteum measured 15mmx15mmx3mm (fig 4). The tissue was sent for histological examination. The H & E stain revealed parakeratinized stratified squamous epithelium showing degenerative changes(fig 5 & fig 6). The epithelium seems to be separated from underlying connective tissue with short flat rete-pegs. Basal cell degeneration seen at places. The underlying connective tissue is fibrous with thick bands and interlacing collagen fibres interspersed with varying number and fibroblast and fibrocytes. The connective tissue stroma also comprises of chronic inflammatory infiltrate and necrotic areas. Further immunohistochemical stain for S-100 was advised and it was found to be negative for neural tissue(fig 7 & fig 8). Masson trichone stain was positive for fibrous tissues(fig 9), confirming the diagnosis of true fibroma. Patient reported for follow up examination at 15 days (fig 11) and 6 months interval post-operatively and was free of recurrence.

III. Discussion

Fibromas are benign tumors that are composed of fibrous connective tissue. They can grow in all organs. Localized fibrous growths are of frequent occurrence in the oral mucosa. They are asymptomatic lesions found more frequently in the buccal mucosa in the fourth decades of life.¹ Most of them are proliferative(hyperplasia). True fibromas of the oral mucosa is an extremely rare benign neoplasm. Barker & Lucas were the first to establish the histologic criteria in relation to two cases localized on the lip and palatal mucosa, since then few cases have appeared in the literature. ⁶ Barker & Lucas in reviewing 171 specimens of

localized fibrous growths recognized two cases of true fibroma and established the following criteria by which it could be distinguished from reparative and reactive hyperplasia 1)character of the collagen fibres with in the lesion 2) sharp demarcation of the lesion from the surrounding tissue 3) the presence of a capsule. ⁸ Since then two lesions among 455 localized gingival overgrowth reported by lee ⁵ and another are reported by schinder and wiensenger among 129 fibrous gingival lesions have fulfilled the criteria of Barker and Lucas.⁴

According to Barker and Lucas, irritational fibroma exhibit a pattern of collagen arrangement depending on the site of the lesion. There are two types of pattern (radiating pattern and circular pattern). In radiating type, the fibres radiate towards the epithelium from the base of the lesion. While the cicular type shows a central mass of disoriented fibres surrounded by a peripheral layer of collagen fibres running beneath and parallel to the overlying epithelium. Thus they hypothesized that the former appears when there is greater degree of trauma and in sites which are immobile in nature (eg. Palate) while lesser trauma induces later and it occurs in the site that are flexible in nature(eg. Cheek).⁷

The present case showed characteristics of true fibromas by which it can be differentiated from irritational fibroma. Negative immunohistochemical stain for S-100 for nerve and positive Masson trichon stain for fibrous tissue supported the diagnosis of true fibroma.

IV. Conclusion

True fibroma arising from oral mucosa is a very rare benign neoplasm. The present depicted characteristic histopathological features. The immunohistochemical results for S-100 provided negative results for nerves and positive for fibrous tissue antigen suggesting the diagnosis of true fibroma.

References

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Photographs



Fig-1



Fig-2

Occlusal Radiograph



Fig-3

Excised tissue

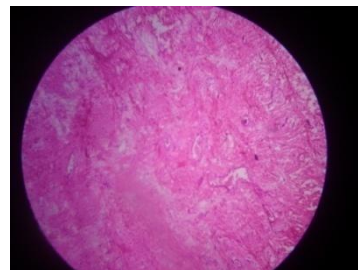


Fig-4

**Microscopic pictures
(H&E staining)**

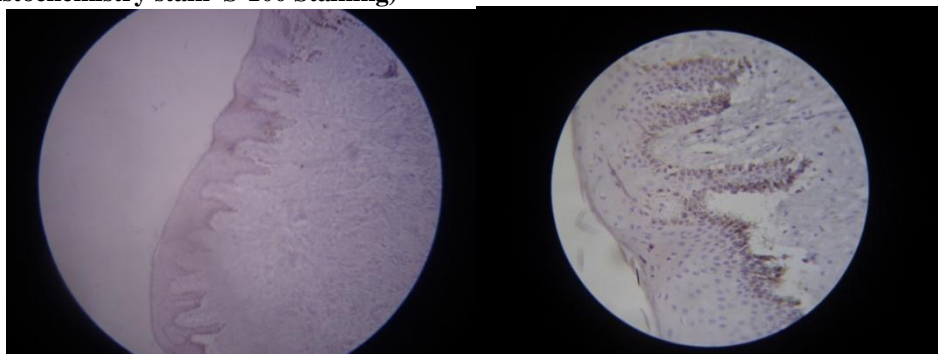


(10x)
Fig-5



(40x)
Fig-6

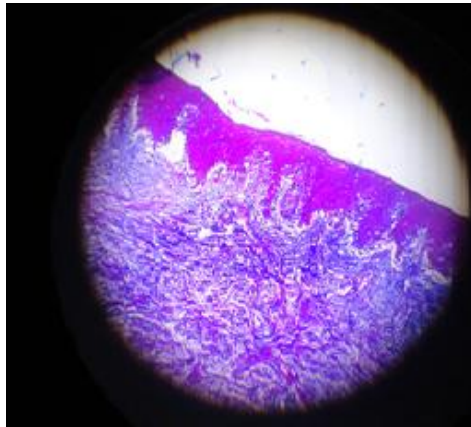
(Immunohistochemistry stain S-100 Staining)



(10x)
Fig-7

(40x)
Fig-8

(Masson Trichon)



(10x)
Fig-9

**Immediate after post -op
After 15 days**



Fig-10



Fig-11