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Large Peripheral Ossifying Fibroma of palate – Case Report

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I. INTRODUCTION

Fibromas are benign tumors of fibrous connective tissues of oral cavity but rarely occurring in palatal region. Fibromas are usually small in size but some lesion can grow to a larger extent. Most of the fibromas of oral cavity are reactive hyperplasia in response to local irritants like plaque, calculus, ill-fitting dentures. They are found approximately 1.2% in adults with a female predilection of about 66%. Mostly they are present on gingiva, buccal mucosa, interdental papilaa but rarely on hard palate. This case report is of unexpectedly large ossifying fibroma of hard palate [(1)].

II. CASE REPORT

A 66 year old male patient reported to the department of oral medicine and radiology, Eklavya dental college and hospital with a chief complaint of growth in anterior palatal region since 6 months. The lesion started as a small painless, papule mass of about 1.5 cm x 1cm 6 months back and gradually attained a large size of about 4 x 3 cm. Patient reported difficulty in mastication, speech. On examination the lesion showed no signs of inflammation and the lesion was absolutely non-tender. Regional lymphnodes were also non-tender. Local examination revealed round, pedunculated, firm in consistency measuring about 4 x 3 cm.

Intraoral examination revealed solitary round pedunculated growth measuring about 4 x 3 cm extending antero-posteriorly from mesial surface of 15 to the distal surface of 25. On palpation growth was well defined , with over lying corrugated surface, firm to soft in consistency and was not tender. Based upon history and clinical examination, the lesion was provisionally diagnosed as pyogenic Granuloma, peripheral ossifying fibroma, papiloma of hard palate was considered among differentials. Intraoral periapical radiograph and OPG were taken which showed specs of calcification in the soft tissue shadow. After complete radiological, clinical and blood investigation an excisional biopsy as done local anaesthesia. Lesion was completely excised using no 15 blade and specimen was sent for histopathological investigation.

III. DISCUSSION.

The term POF was coined by Eversol & Robin in 1972, Waldron in 1933 described it as a well demarcated and rarely encapsulated lesion with fibrous tissue. Peripheral Ossifying fibromas are hyperplastic soft tissue growth from gingival periostium and periodontal membrane [(2)]. Clinically POF are sessile and rarely pedunculated usually less than 2cm but can reach upto 6 cm. Majority of lesions occur in 3-6 decade of life with a female predilection due to hormonal changes during 2-3 decade. It accounts for about 9% of all gingival growth with 2/3rd of the lesions occurring in maxillary anterior region [(3)].

The aetiology is local irritants like minor trauma, calculus, ill-fitting dentures, orthodontic appliances, irregular restorations, plaque, tobacco, and hormonal disturbances [(4)]. POF is a non neoplastic gingival enlargement as a reactive hyperplastic inflammatory lesion. Barker and Lucas studied the collagen pattern and depending upon the size and amount of irritation there are two variants. Radiating and Circular. According to the hypothesis greater trauma produces radiating patterns that appear on sites which are immobile like palate and lesser trauma produces circular pattern at sites such as cheeks[(5)].

Radiographiccaly POF rarely shows any changes except pressure associated cupping defects, rare displacement of tooth, and diffuse radio-opaque areas[(6)]. However some cases might show varying degree of radiodensity within the lesion, depending upon the extent of bone loss, cupping defect and focal calcification areas [(7)].

Etiopathogenesis of POF is still uncertain. It is suggested to arise from the cells of Periodontal ligament because POF includes excessive proximity to gingival, PDL and presence of oxytalan fibers within the mineralized matrix of some lesion. Histologically two schools of thoughts are there regarding POF. First POF may develop as poyogenic Granuloma which undergoes subsequent fibrous maturation and calcification. Second inflammatory hyperplasia of cells of PDL/periostium, metaplasia of connective tissues leads to dystrophic calcification and bone formation. POF can exhibit ulcerated or intact stratified squmaous epithelium .

3 zones can be identified in typical ulcerated

Type 1 – superficial ulcerated zone covered with fibrous exudates and PMN debris

Type 2 – zone beneath the surface epithelium composed almost proliferating fibroblast with diffuse infiltration of chronic inflammatory cells mostly lmphnodes.

Type 3 – more collagen connective tissue with less vascularity,osteogens with osteoid and bone formnation is a prominent feature.

Treatment modalities include complete surgical excession with removal of all possible irritants and causative factors contributing to formation of POF.

IV. CONCLUSION

POF are slow growing painless fibrous growth due to inflammatory reactive hyperplasia of gingival. Treatment includes complete excession, including periostium and scaling of adjacent teeth. Close post operative follow up is required as reoccurance rate of POF is about 8 – 20% (Shetty & Adhyanthaya).

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