



PERIPHERAL OSSIFYING FIBROMA OF THE GINGIVA: A CASE REPORT

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ABSTRACT

Peripheral ossifying fibroma (POF) is a localized gingival overgrowth belonging to a common cluster of lesions designated as focal reactive overgrowths (FROG). It appears as a painless, red or pink nodular mass, either pedunculated or sessile. The definitive diagnosis is established by histological examination, which sometimes reveals focal calcifications in the connective tissue.

We came across a case of a localised gingival overgrowth in a 45 year-old systemically healthy female. The patient reported with a painless, nodular swelling of the gums which was gradually increasing in size. The overgrowth was seen in the left mandibular anterior region resulting in displacement of teeth and discomfort in speech and mastication. Surgical excision of the lesion was carried out and was subjected to histopathological analysis.

KEYWORDS : Peripheral ossifying fibroma, focal reactive overgrowth.

INTRODUCTION

The oral mucosa is subjected to constant mechanical and chemical stimuli resulting in various reactive mucosal lesions.

¹ The commonly affected site is maxillary anterior gingiva.² Localized gingival overgrowths like peripheral fibroma (PF), peripheral ossifying fibroma (POF) and pyogenic granuloma (PG) are such commonly occurring group of reactive mucosal lesions designated as focal reactive overgrowths (FROG).³ FROGs are usually associated with poor oral hygiene, indicating towards their reactive nature.²

POF is the third most common FROG accounting for about 27% cases.⁴ POF was first reported by Shepherd in 1844 as alveolar exostosis. Eversol and Robin in 1972, later coined the term peripheral ossifying fibroma.⁵ It presents as a painless mass on gingiva or alveolar mucosa usually not exceeding 3 cm. It can be pedunculated or sessile. Earlier lesions appear irregular and red while older lesions have a smooth pink surface. Surface ulceration may be present.³

The occurrence of a considerably large POF in a female in her fifth decade is relatively rare. We came across one such case and successfully managed it with a conservative approach.

CASE REPORT

A 45year old female reported with a chief complaint of swelling of the gums near the angle of the mouth since five months. Patient was not aware of such growth until 5 months back when she noticed a small slowly growing enlargement of the gum that gradually progressed to the present size. The lesion was asymptomatic, but interfered with mastication, speech, and oral hygiene. There was no bleeding or tenderness associated with the swelling.



Fig.1. Clinical photographs of the lesion (pre-operative view)

General examination did not reveal any systemic abnormalities. Past dental history, medical history and personal history were non-significant. Gross asymmetry of the face was observed with fullness on the left side. Lymph nodes were non palpable.

Intraoral examination revealed a sessile, solitary, pink round to ovoid gingival overgrowth extending from the distal surface of the mandibular lateral incisor till the mesial surface of the first premolar. Inspection also revealed a bright red, smooth and non-ulcerated surface of the lesion. The superior surface of the lesion had indentations due to constant trauma and impingement from the antagonist tooth. On inspection, the overgrowth was firm and nontender. Bleeding on probing was present. The associated teeth (i.e.32,33) exhibited grade I mobility. A provisional diagnosis of fibroma was made.

The radiographic investigations included an occlusal view of the mandible. The occlusal radiograph demonstrated discrete radio opaque flecks in a fan shaped arrangement around the involved teeth suggestive of foci of calcification. Routine blood investigations including blood calcium were done.

The complete excision of the lesion was carried out using a no.12 blade under local anaesthesia, while following strict

aseptic protocols. Meticulous root planing was done to ensure complete removal of the local irritation factors. Utmost care was taken to ensure the removal of the lesion from its base to minimise the chances of recurrence. A periodontal dressing was placed and the patient was given relevant postoperative instructions. The patient was recalled after a week for dressing removal and follow up. Healing at the site of excision was uneventful. The excisional specimen was then subjected to histopathological analysis.



Fig.2 Immediate postoperative view



Fig.3 Healing in two weeks



Fig.4 Nine months follow up

The excised tissue specimen was a single large bit of soft tissue (size 2.3 * 2.4 * 1.2 cm) of roughly ovoid shape, with smooth surface and yellowish white in colour with areas of brownish discoloration. It had an overall firm consistency except in the central core area where it was bony hard. The tissue specimen was fixed and processed for routine histopathological examination.

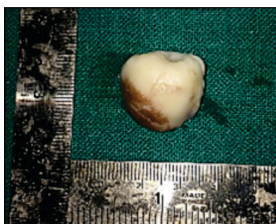


Fig.5 Excised specimen

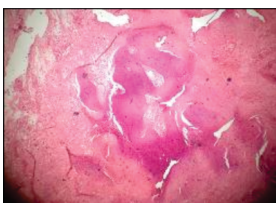


Fig.6 Photomicrograph showing lamellar bone formation in connective tissue

stained section showed surface covering of parakeratinised stratified squamous epithelium with underlying fibro-cellular connective tissue. The connective tissue was composed of plump fibroblasts and dense collagen fibre bundles. The areas of sub-epithelial connective tissue showed dense chronic inflammatory cell infiltrate, mostly plasma cells and lymphocytes. The stroma showed areas of lamellar bone formation and few dystrophic calcifications. The histopathological findings were diagnostic of peripheral ossifying fibroma.

DISCUSSION

Peripheral ossifying fibroma is a common gingival growth usually arising from the interdental papilla.⁶ Though, the etiopathogenesis of peripheral ossifying fibroma is uncertain, an origin from the cells of the periodontal ligament has been suggested.⁷ Trauma or local irritants such as dental plaque, calculus, micro-organisms, masticatory forces, ill-fitting dentures and poor quality restorations have been implicated in the etiology of peripheral ossifying fibroma (Kumar et al, 2006).⁷ In the present case, poor oral hygiene was evident.

It is more commonly seen in 1st and 2nd decades of life and has a female preponderance. There is a slight predilection for the maxillary arch and in the incisor cuspid region.⁸ Hormonal influences may play a role, as it has higher incidence among females, increasing occurrence in the second decade and declining incidence after the third decade.⁹ However, in the present case, it occurred in the fifth decade and in the mandibular anterior region.

Recurrences of these lesions are not uncommon.¹⁰ The patient was followed up for a period of nine months and no recurrence was reported. These types of growths generally respond well to plaque control, removal of the causative irritants, and conservative tissue management. The reactive nature and unpredictable course attribute to a high recurrence rate of the lesion; hence, proper postoperative monitoring and follow-up of these lesions are necessary.

CONCLUSION

Peripheral ossifying fibroma is a slowly progressing lesion. It shows a varied clinicopathological presentation. Our case presented a different age, size and site of POF in total contrast to its usual clinical presentation.

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