A Clinico Pathologic Case Study on Peripheral Odontogenic Fibroma for Dental Problems in rural areas

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Abstract
The “peripheral odontogenic fibroma (POF)” is the benevolent, slow-developing, exophytic sore happening on gingiva. It seems, by all accounts, to be unmistakably more normal than its intraosseous partner, “centralodontogenic fibroma (COF)”. An instance of POF with its clinicopathologic discoveries are recorded here. A long term old female patient with a main grumbling of growing in lower right back tooth district for about half a year. The lesions was extracted and sent for histopathologic assessment that uncovered to be POF. The POF is the extraosseous variation of the COF. It can impersonate an assortment of receptive neoplasms andlesions in this way need an excisional biopsy for complete conclusion. The sore shows a critical development potential must warrant a nearby development. In present case report the injury was extracted and no repeat of the sore was found in one month follow up.

Key words: POF, COF, Excisional biopsy, World Health Organization (WHO), odontogenic fibroma (OF), odontogenic epithelium (OE)

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1 Introduction
The OF is benevolent neoplasm of odontogenice to mesenchymal source, described by generally develop collagenous fibrous tissue with fluctuating number of OE. It might happen in 2 variations as peripheral or central in area, the last being very common by 1:4:1 ratio. A small female preference is accounted for by Daley et al. The onset age differs broadly with a top in 3rd and 4th decades of life [1-3].

The WHO defines POF as benevolent odontogenic neoplasm of fibroblastic birthplace described by moderately develops collagenous stringy tissue and changing number of OE with possible to happen in either extraosseous or central area. The tumors occurring in these extraosseous locations are designated as POF [4-8].

The tumor shows up as a firm, slow-developing and typically sessile gingival mass secured by ordinary showing up mucosa. Clinically, it might not be recognized from basic fibrous gingival sores. Experienced chiefly on mandible facial gingiva, with premolar andincisor-canine zone being very widely recognized destinations, they only sometimes cause dislodging of teeth. Infrequently, multifocal or diffuse injuries have likewise been
The lesion is commonly raised and non-encapsulated microscopically and nonulcerated clinically. Histological, connective tissue extents from loose to extraordinarily cell or to moderately a cellular those are efficient. Islands of OE are dissipated all through connective tissue that might be unmistakable scant. Dysplastic dentin, nebulous ovoid cemented such astrabeculae and calcifications of asteroid may likewise be available [13-17].

A 37 year old female reported to division of Periodontics, Vydehi institute of dental sciences and research center, with main complaint of swelling in the lower right back tooth region since long back (Figure 1). Patient was apparently normal 6 years back when she first observed swelling on lingual aspect in relation to lower right second premolar region. The swelling was primarily small in size that has progressively improved to the current size. There has been no further increase in size reported by the patient from past 6 months. The patient was not able to brush on the lingual aspect of lower right second premolar due to the presence of enlargement. The social, medical, and family histories did not reveal any important findings. The extraoral investigation also did not reveal any abnormality. On investigation, a solitary gingival overgrowth was seen in relation to lingual aspect of 45 measuring about 1 x 1.5 cm, non-tender and firm in consistency. No mobility and pocket formation was seen in relation to 45. Complete full mouth gingival and periodontal examination was done. A clinical diagnosis of chronic generalized gingivitis with mild localized periodontitis was made. Provisional diagnosis of fibrous hyperplasia, irritational fibroma and peripheral ossifying fibroma were made. Intraoral periapical radiograph (IOPA) of included area was taken that did not reveal any significant findings (Figure 2). The excisional biopsy of lesion was done under local anaesthesia. (Figure 3 and Figure 4). The periodontal pack was located and patient was recalled after one week for pack removal and subsequent evaluation. Histopathological examination showed orthokeratinized stratified squamous epithelium with underlying fibrous connective tissue (FCT) stroma. The FCT displayed bundles of collagen fibres with presence of inactive odontogenic epithelial cells in form of islands and strands. Ectopic collection of sebaceous gland was also seen. Deeper areas showed bundles of muscle fibres(Figure5). Considering the clinical and histopathological features, POF diagnosis was made. The patient was followed up after one month and healing was found to be satisfactory with no tendency for recurrence (Figure 6).
Figure 2: IOPA in relation to 45

Figure 3: Excisional biopsy being performed

Figure 4: Excised tissue mass
DISCUSSION

Peripheral odontogenic fibroma is an unusual exophytic mass establish on gingiva might clinically mimic a diversity of reactive lesions and neoplasms [18-22]. The POF typically ascends as painless, focal swelling might ascend through either arch, however, tends to happen in “mandibular canine-premolar” and maxillary anterior area. It is often the same color as the surrounding mucosa but may be inflamed and ulcerated. There is a wide age extent that stretches out 1st to 9th decade of life, with slight increment in frequency in third decade. It is seen fairly more habitually in ladies than in men with no expansion in hazard dependent on race or nationality [23-25]. The POF is treated by nearby extraction and forecast is fantastic. The differential determination of the sore incorporates stringy hyperplasia, fibroma, monster cell fibroma, fringe solidifying fibroma, fringe odontogenic tumors, fringe goliath cell granuloma, and pyogenic granuloma. Baden et al had assigned POF as ‘odontogenic gingival epithelial hamartoma [26-28]. At one time the term fringe solidifying fibroma and POF was utilized interchangeably [7]. The POF doesn't include the basic bone and just now and again shows territories of calcification on radiograph [5]. The lesion in this case report also did not show any involvement with the underlying bone.

The OF is for the most part thought to be “fibroblastic neoplasm” comprising differing measures of odontogenic epithelium. It should emerge from mesenchymal components of tooth germ, that will be dental follicle, periodontal tendon, and it is conceivable that it speaks to the terminal, full grown type of a range of elements going from odontogenicmyxoma, myxofibroma, to odontogenic fibroma. Recurrence of the tumor has been reported by the studies done by Daley et al so post-surgical follow up is mandatory [29], [30].

CONCLUSION

The case report showed POF in lower right posterior area of gingiva of a 37 year old female patient was treated by removing lesion. The healing of surgical site was found uneventful and no recurrence happened in 1 month follow-up. The patient’s oral hygiene was discovering to be satisfactory. As this lesion recurrence rate will be
higher, clinicians should emphasize on patient’s motivation for regular periodic revaluation.

REFERENCES


