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Extraosseous Odontogenic Myxoma – Rare Entity

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Abstract:
Odontogenic Myxoma (OM) is a heterogenous myxoid lesion which is benign in nature and has mesenchymal odontogenic origin. Rudolf Virchow described it initially as myxofibroma in 1863 and was later Thoma and Goldman renamed it as odontogenic myxoma by in 1947.Peripheral Odontogenic Myxoma (POM) is a slow growing tumour with less recurrence rate and no evidence of metastasis. There are very less available case reports about POM. This paper is aimed at presenting a case of POM in maxilla and its management which had similar clinical features like peripheral giant cell granuloma (PGCG). The patient underwent excision, thorough curettage and peripheral ostectomy was done, closure was achieved primarily. The patient was followed up for one year and no signs of recurrence were seen.
***Key Words**: Odontogenic Myxoma,Gingival mass*

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I. Introduction

Odontogenic Myxoma (OM) is a heterogenous myxoid lesion which is benign in nature and has mesenchymal odontogenic origin[1]. Rudolf Virchow described it initially as myxofibroma in 1863 and was later Thoma and Goldman renamed it as odontogenic myxoma by in 1947[2].

The OM has two variants, central and peripheral[3]. Extraosseous odontogenic myxoma / Peripheral odontogenic myxoma (POM) is very rare and is less aggressive than central variant. POM is considered as an extra-osseous counterpart of OM[4].

POM is a slow growing tumour with less recurrence rate and no evidence of metastasis[1.] It presents clinically as soft / firm / hard gingival mass and occasionally pedunculated[5-10]. It is predominantly seen in females and maxilla is more commonly involved[11]. There are very less available case reports about POM. This paper is aimed at presenting a case of POM in maxilla and its management which had similar clinical features like peripheral giant cell granuloma (PGCG).

Case Presentation

A 6O-year-old male patient reported to our outpatient clinic with a chief complaint of swelling in upper front teeth region and difficulty in chewing food for past 2 years. The swelling was gradually increasing in size since then. There was no associated history of trauma. Extraoral examination revealed incompetent lips with gingival swelling abutting near left corner of mouth. On the intraoral examination an exophytic gingival swelling was seen in left anterior maxilla involving anterior palate on left side, measuring approximately 5cm anteroposteriorly and 3cm in width (Figure 1 and 2). The mucosa covering the lesion was normal in colour with lobulated surface and well encapsulated (Figure 1). On palpation it was firm in consistency, non-compressible, non-tender, had a pedunculated base, displacement and mobility of the regional teeth were seen. The rest of the clinical head and neck examination was within normal limits. Orthopantomogram revealed displacement of tooth no 22, 23 and there was no evidence of bony involvement (Figure 3). Overall, from the clinical and radiographic findings, a differential diagnosis of peripheral giant cell granuloma and peripheral ossifying fibroma was made. A decision of excision of mass under local anaesthesia was made. The mass was surgically excised and involved teeth were extracted. Intraoperatively, there was discharge of cheesy, mucinous discharge

from the mass. A possible diagnosis of POM was then made and excision, thorough curettage and peripheral ostectomy was done, closure was achieved primarily. The excised lesion was sent for pathological examination (Figure 4). Healing was satisfactory after 1 month postoperatively (Figure 5). The patient was followed up for one year and no signs of recurrence were seen.

Macroscopically the tumour mass was pedunculated, irregular firm to hard tissue measuring 5 x 3 x 1.5cm^3. External surface was brown with focal smooth whitish areas. Cut section was solid and trabeculated. Microscopic examination of the tissue sections showed hyperplastic stratified squamous epithelium lined tissue. Subepithelial tissue showed a spindle cell tumour. It was composed of dispersed, bland appearing spindled fibroblasts set in a myxoid fibro collagenous stroma (Figure 6). Focal collections of lymphocytes and plasma cells were seen. There was no evidence of Giant cells. Based on these findings a histopathological diagnosis of peripheral odontogenic myxoma was made.

Figure 1: Lobulated, well defined gingival swelling with displacement of tooth 22, 23.

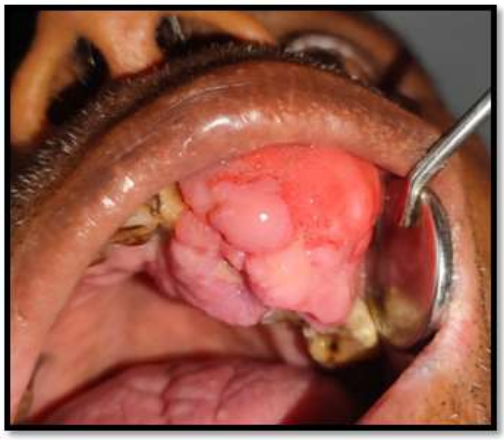

Figure 2: Palatal extension of swelling.

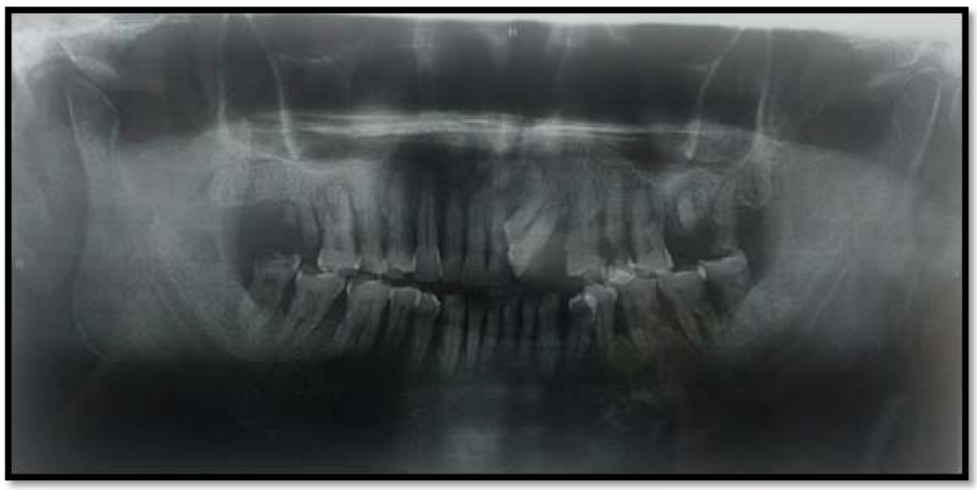

Figure 3: Orthopantomogram revealing no bony involvement.

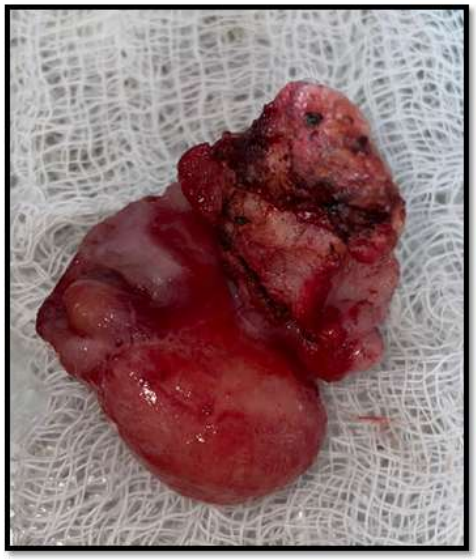

Figure 4: Excised specimen

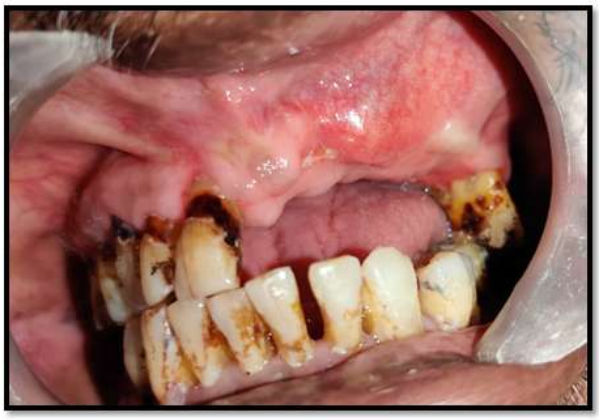

Figure 5: Good mucosal cover over the surgical defect (1 month post operatively).

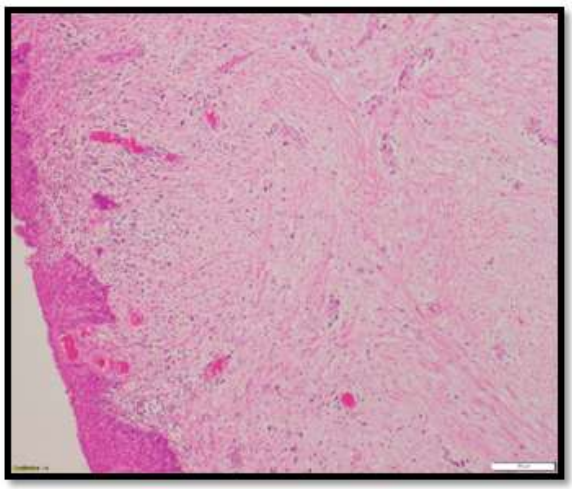

Figure 6: Microscopic image

II. Discussion

OM arises from odontogenic ectomesenchyme of the dental follicle, it is a locally invasive neoplasm unique to the tooth bearing areas of maxilla and mandible[12].

POM is an extraosseous form of myxoma, is a rather rare entity with very few cases reported in the literature. Several theories have been proposed regarding the pathogenesis of POM. One hypothesis states that altered primitive myofibroblasts / fibroblasts produce excess mucopolysaccharides and most of these cells are not capable of forming mature collagen. Few other authors have suggested an origin derived from periodontal ligament mesenchymal cells, such as dental follicle or dental papilla[13]. Clinical features may include swelling, pain, mobility of teeth, facial asymmetry[14]. WHO classification of head and neck tumours describes it histologically as identical to the dental papilla of a developing tooth[11]. Surgical excision is the treatment of choice and according to a review by Saalima et al OM has very less recurrence on a 10 year follow up[9]. As POM resembles PGCG clinically, a possibility of POM has to be kept during management of the pedunculated masses of gingiva (Similar to our case). A thorough clinical examination, complete excision and close follow up are paramount in treating these lesions.

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