RARE TUMOUR MIMICKING THE COMMON: A CASE REPORT

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ABSTRACT

BACKGROUND

Ameloblastoma is the most common benign odontogenic tumour of the jaws, involving mandible and maxilla. It is a rare tumour & constitutes about 1% of all tumours of the jaw and about 9-11% of odontogenic tumours. Being rare, very large size ameloblastomas are even rarer. We present the case of a 55-year-old man, who reported with a mass in the oral cavity since last 10-12 years which was insidious in onset and gradually increased to the present size. It was an exophytic growth measuring about 12×8×6 cm arising from the floor of the mouth, vestibule and lower lip clinically involving the lower alveolus. En bloc resection of the mass was done with adequate margins and final histopathological report suggested ameloblastoma of lower alveolus. There was no recurrence reported till 1 year of follow-up.

KEYWORDS

Ameloblastoma, odontogenic tumours, en-bloc resection.

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PRESENTATION OF CASE

A 55-year-old man reported with a mass in the oral cavity since last 10-12 years which was insidious in onset and gradually increased to the present size. There was no history of trauma, no history of dysphagia or breathing difficulty. Patient was a known chronic smoker. There was no history of any systemic disease or any other health problem. On examination the mass was firm, non-tender and bleeding on touch was present. It was an exophytic growth measuring about 12×8×6 cm arising from the floor of the mouth, vestibule and lower lip clinically involving the lower alveolus (Fig. 1).

Figure 1

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DIFFERENTIAL DIAGNOSIS

Dentigerous Cyst, Odontogenic Keratocyst, Odontogenic Myxoma, Aneurysmal Bone cyst, Fibrous Dysplasia, Hard odontoma, Osteosarcoma, Globulomaxillary cyst, basal cell carcinoma, squamous cell carcinoma

CLINICAL DIAGNOSIS

The clinical examination suggested a number of differential diagnoses. Being very slow growing, first few clinical diagnoses which were taken into account were benign lesions of the mandible and maxilla including the ameloblastoma. But in case of a very large exophytic mass in a male chronic smoker basal cell carcinoma & squamous cell carcinoma have to be always ruled out. Therefore, to confirm the diagnosis punch biopsy of the lesion & CECT oral cavity and neck was planned. CT scan suggested bony destruction in the body of mandible in midline. Well defined, lobulated heterogeneously enhancing exophytic mass (8x6x5cm) lesion involving soft tissues of chin along the lower lip, in the region of osteolytic area in the body of mandible a well as external gingival margin in the region of lower incisors having couple of calcification and bony chips (Fig. 2). Subcentrimetric minimally enhancing right level 1b node was present. The histopathology of punch biopsy showed exophytic papillomatous and hyperplastic squamous epithelium. So as the diagnosis was still not clear surgical excision and frozen section followed by histopathological examination was planned.

Figure 2

DISCUSSION OF MANAGEMENT

Ameloblastoma is the most common benign odontogenic tumour of the jaws, involving mandible (80%) and maxilla.[1] It is a rare tumor & constitutes about 1% of all tumours of the jaw and about 9-11% of odontogenic tumours. The tumour is usually slow growing but locally aggressive with a tendency of invasion of adjacent structures.[2,3] Local invasiveness & proliferative nature has been attributed to Matrix Metallo Proteinases (MMP).[4] It is generally a painless tumor causing expansion of the cortical bone, perforation of the lingual or the buccal cortical plate and infiltration of the soft tissues. It occurs mostly in the middle-aged group but can occur in any age group with equal gender predilection.[5] The lesion has always fascinated the clinicians because of its different type of clinical & pathological presentations.

As far as management is concerned in a conventional radiograph, ameloblastoma may present as either unilocular or multilocular corticated radiolucency; the bony septae result in a honey comb or soap bubble like appearance, or tennis racket pattern. In some places, cortical plates get spared & expanded while in few other regions they get destroyed; root resorption may also be present.[6] Buccal and lingual cortical plate expansion is more common in ameloblastoma than in other tumours. For small lesions conventional radiograph may help but for extensive or large lesions on needs a CT scan or MRI to establish the extent of the lesion.[7] The treatment of ameloblastomas has been controversial. They can be treated by curettage or enucleation and curettage. In cases of large lesions radical surgery can be performed.[8,9,10] In case of ameloblastomas of the maxilla and large mandibular ameloblastomas radical surgery is always preferred. But in cases of unilocular ameloblastomas conservative treatment is taken into consideration. Supraperiosteal bone resection is done when there is lot of thinning or perforation of cortical plates. Chemotherapy and radiation are usually contraindicated.[10]

In the present case wide excision of the growth with central 1/3 mandibulectomy was done with bony cuts from right canines to left premolar region (Fig. 3). Along with that bilateral neck dissection was performed. On right side level I to IV lymph nodes were removed and on left side Modified racial neck dissection type II was performed. Reconstruction of the defect was done by Pectoralis Major Myocutaneous (PMMC) flap reconstruction. During the surgery frozen section was sent which showed numerous small, widely scattered and compressed islands of hyperchromatic odontogenic epithelium within hypocellular collagenous stroma simulating invasion in a squamous carcinoma. As still there was no clear diagnosis, further plan including that of chemo radiation could not be made yet and the final histopathology report (HPR) was awaited. The final HPR showed Ameloblastoma of lower alveolus with sections showing distinct subtypes of ameloblastoma showing mixed histological appearance like basal cells, desmoplastic, acanthomatous, plexiform and follicular (Fig. 4).

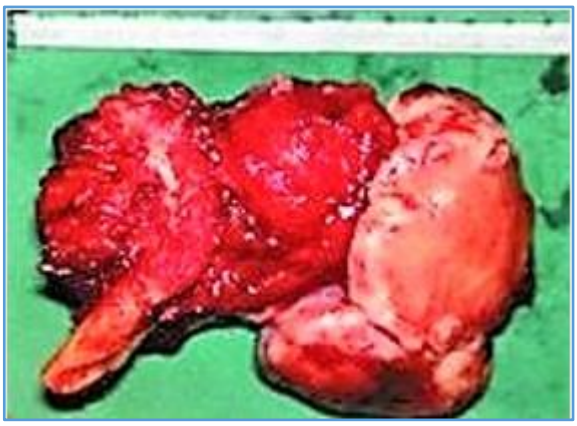

Figure 3

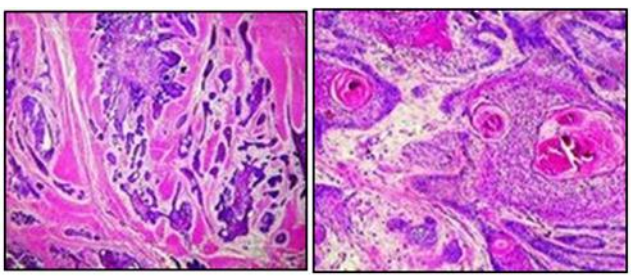

Figure 4

The nature of the tumour and treatment done was explained and the patient was advised regular follow-up visits. There were no signs of recurrence till 1 year of follow-up. Looking at this case and as seen in few other studies like that of Eppley et al[11] it can be concluded that en-bloc tumour resection with good margins is must for reducing the chances of tumour recurrence. The only challenge is providing the best reconstruction method for a better quality of life.

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