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HUGE AMELOBLASTOMA ARISING FROM MAXILLA: DIAGNOSIS AND MANAGEMENT: A CASE REPORT

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ABSTRACT: Ameloblastoma is an odontogenic tumor of epithelial origin that has received considerable attention due to its frequency, clinical subtypes and high tendency to infiltrate and recur. Their name implies a resemblance to cells of enamel forming origin. This paper reports an unicystic large ameloblastoma arises from left maxillary region involving, nasal cavity and orbit. Microscopically tumour showing mixed plexiform and follicular pattern with superimposed infection. The patient was treated with total maxillectomy with prosthesis reconstruction.

KEYWORDS: Plexiform, follicular, maxillectomy, weber furgusson incision.

INTRODUCTION: Ameloblastoma is an enigmatic group of oral tumours whose importance lies in its potential to grow into enormous size with resulting bone deformity.⁽¹⁾

It is an aggressive benign tumor that may originate from enamel organ, remnants of dental lamina, epithelial lining of an odontogenic cyst or basal epithelial cells of the oral mucosa.⁽²⁾ It often presents as a slow growing, painless swelling, causing expansion of the cortical bone, perforation of the lingual and/or buccal plates and infiltration of soft tissue. 75% of tumours originate in ascending ramus and remaining mainly occurs in maxillary region and causes bony deformity.

Ameloblastomas have been categorized broadly into three biologic variants: cystic, solid, and peripheral. The most common histologic subtypes of ameloblastomas are follicular, plexiform, acanthomatous, granular and desmoplastic.

The literature indicates that the cystic variant is biologically less aggressive and has a better response to enucleation or curettage than the solid ameloblastomas.

CASE REPORT: A male 30 years old, presented to our unit with a painless slow growing swelling in left maxillary region for about 10 years (FIGURE 1). Superiorly it was extending upto inferior wall of orbit laterally upto nasal cavity and involving whole of left side maxilla. In oral cavity bulging of hard palate on left side also seen. On palpation swelling was firm to soft. The images provided by Computed tomography (CT) showed large soft tissue density expansile bony lesion in left zygomatic and maxillary region. (FIGURE 2). The lesion has eroded and thinned bony outlines. It is extending medially to involve left maxillary antrum, nasal cavity and orbit. Erosion of left side maxilla is also seen. Egg shell calcification of cortical lining is seen. Peripheral air blebs are also seen.

The lesion is extending downwards to cover almost whole of the face below orbit. Involvement of the left masticator space is also seen.

The selected treatment planning was left side total maxillectomy with prosthesis reconstruction with extended weber furgusson incision under GA.

Pathological findings suggestive of Ameloblastoma showing mixed plexiform and follicular pattern with superimposed infection.

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DISCUSSION: Gorlin identifies cussack as a first person to identify ameloblastoma in 1827. Ameloblastoma although rare but most common odontogenic tumour accounting 1% of all the tumours of head and neck region and around 11% of all the odontogenic tumours.⁽³⁾ Lesions usually occur in the mandible and maxilla, although 75% occur in ascending ramus area and result in bony deformities of mandible and maxilla.⁽⁴⁾

Ameloblastomas are classified as extraosseous and intraosseous. Extraosseous ameloblastomas manifest as sessile or pedunculated, slow growing mass that is confined to gingiva and alveolar mucosa with no involvement of underlying bone.⁽⁵⁾ Intraosseous ameloblastoma arises in the jaw and further classified as unicystic, desmoplastic and mixed cystic and solid. The mixed cystic and solid form demonstrate more aggressive behaviour and is more likely to recur than unicystic and desmoplastic ameloblastoma.⁽⁵⁾

Maxillary ameloblastoma is predominantly painless and slow growing mass because of lack of a thick cortical plate, the plentiful cancellous bone and proximity of maxilla to nasal cavity, nasopharynx, orbit and skull.⁽⁶⁾ In presented case the ameloblastoma arisen from left maxilla involving, reaching upto left nasal cavity and inferior orbit wall without penetrating the structure.

Ameloblastoma is an osteolytic lesion and does not produce mineralized components except in rare cases.⁽⁷⁾ When the maxillary sinus and surrounding structures are involved, opacification of the sinus and expansion of its walls with or without bone destruction makes it impossible to distinguish ameloblastoma from other malignant and invasive tumours.⁽⁸⁾

A number of modalities have been proposed in the treatment of ameloblastoma, like wide excision, curettage, enucleation, cryotherapy, cautery, laser usage, radiotherapy and chemotherapy.⁽⁹⁾

The histopathological type of ameloblastoma is an important criteria for determination of treatment of choice⁽¹⁰⁾. Good results have been obtained either with radical treatment^(11,12) or more conservative approaches although enucleation and curettage have been reported as methods with the highest rate of recurrence. So, it appears that the best surgical method for the treatment of a maxillary ameloblastoma is a limited or wide excision of the tumour with a 10-15 mm margin of normal bone if available. Wide maxillectomy is the method of choice.

In our case the ameloblastoma is solid with cystic changes in it, that is a combination of two varieties hardly to found in very rare cases, in this case a huge ameloblastoma arising from maxilla.

The histopathological variant in this case is mixed cellular and plexiform type also a rare combination. So mode of treatment chosen in this case was left side total maxillectomy approached by extended weber furgusson incision with maxillary prosthesis. Now the patient is under follow up since last two years and there is no signs of recurrence seen.

CONCLUSION: Our case is consistent with three entities: a huge ameloblastoma that is arising from maxilla and involving left side nasal cavity and inferior wall of orbit of same side, a rare mixed pattern of solid and cystic type, histopathology showing plexiform and cellular subtype, surgical approach with extended weber furgusson incision for total maxillectomy and patient rehabilitation with prosthesis.

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Fig. 1: PREOPERATIVE

Fig. 2: CT PNS

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Fig. 3: POSTOPERATIVE COMPRESSED 4

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