

UNUSUAL CASE OF GIANT MULTICYSTIC ACANTHOMATOUS AMELOBLASTOMA OF MANDIBLE IN A 70 YEARS OLD MALE

LETTER TO THE EDITOR, Vol-4 No.4

Asian Journal of Medical Science, Volume-4(2013)

<http://nepjol.info/index.php/AJMS>

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“A mass in the mandibular region often presents a diagnostic challenge with regard to its site of origin (bone or soft tissue lesion), benign or malignant, and tissue-specific diagnosis.”

Dear Editor,

Ameloblastoma is a rare, benign neoplasm of odontogenic epithelium described for the first time by Broca (1868) as adamantinoma, and then re-coined by Churchill (1934).¹ Ameloblastoma poses a challenge to pathologists because of its clinical behavior and diversity of histological features.

A 70 years old male presented with a painless slow growing swelling of 5 years duration in the left mandibular region. On local examination a hard non-tender mass measuring 9x8cm over left side of mandible was felt [Figure.1A], which on plain radiograph revealed lytic expansile multiloculated lesion involving ramus and body of the mandible with areas of bony destruction [Figure.1B]. Intraoral examination revealed a diffuse swelling arising from left side of mandible extending from angle to first premolar tooth covered by normal oral mucosa. No neck nodes were palpable. A clinical diagnosis of mandibular cyst was made. On ultrasonographical examination it showed extension in to soft tissues with cystic necrotic areas and foci of calcification. Fine needle aspiration cytology (FNAC) of the mass was performed which yielded necrotic material only. Microscopically the smears were acellular. Incisional biopsy was performed which on histopathological examination revealed solid epithelial cell nests with peripheral palisading ameloblastic cells and central squamous cells with formation of keratin pearls [Figure.1 C,D] consistent with diagnosis of acanthomatous ameloblastoma.

Ameloblastoma accounts for 1% of all tumors of the jaw mainly encountered during the three to five decades of life.¹ There are three macroscopic subtypes: solid or multicystic, unicystic and peripheral.² The tumor is classified histologically in to two main types; plexiform and follicular and further sub classified in to four types: acanthomatous, granular cell, desmoplastic and basal cell type. Acanthomatous variant is a rare subtype.³

Both follicular and plexiform variants show basal cells arranged in a peripheral palisading pattern with the cells in the central portion mimicking stellate reticulum.⁴ Acanthomatous variants show central portions composed of epithelial cells with formation of keratin pearls. The etiopathogenesis of ameloblastoma is not clear but it is suggested that the tumor may be originating from cell nests of the enamel organ, epithelium of odontogenic cyst or disturbance of the developing enamel organ. Squamous metaplasia such as that seen in acanthomatous ameloblastoma may be attributed to chronic irritation due to calculus and oral sepsis.¹ Differential diagnosis includes keratocyst, radicular cyst, dentigerous cyst, and fibro-osseous lesions.

Clinically ameloblastomas are relatively symptomless slow growing locally invasive neoplasms. Treatment of ameloblastoma is by surgery which depends upon the type of lesion. Risk of local recurrence depends upon histological type. Relatively high recurrence rate is seen in follicular and plexiform patterns. The reported recurrence rate of acanthomatous ameloblastoma after resection varies from 0% to 25%.³ Acanthomatous ameloblastoma if left untreated can develop into an invading squamous cell carcinoma.⁵

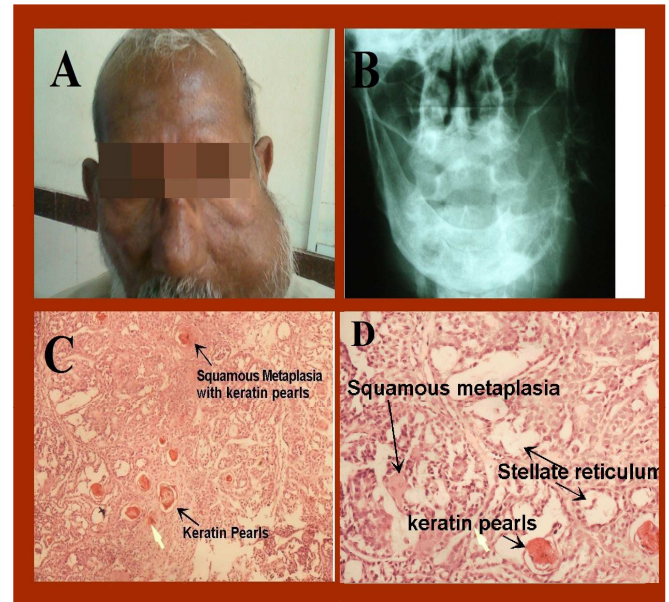


Figure. 1A Clinical photograph of the patient showing swelling in left mandibular region. B. Plain radiograph showing large multiloculated mass involving left mandible. C. Photomicrograph showing solid epithelial cell nests with peripheral palisading tumor cells and central stellate reticulum with squamous pearls (H& E, X100) D. Higher magnification showing palisaded cells and squamous cells with pearls. (H & E, X400)

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