



Radiographic diagnosis of Ameloblastoma of the jaw in a 20yr old female in a Rural Setting

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Introduction

Amenoblastoma is an odontogenic epithelial benign tumor. In the jaw the mandible is the commonest site of predilection in about 99.1%.^{1,2} It makes up about 1% of all tumors in Europe but commoner in blacks (African males about 0.3%). A slightly higher male predominance is documented.³ A peak age of 30-40 yrs is known though can occur at any age group and commonly in the younger age in blacks.⁴ It has over the years posed a great challenge to the radiologist and plastic surgeon. An atypical presentation in a 20yr old female is presented here.

Case Report

A.N is a 20 yr old female who presented at the general outpatient department of University of Ilorin Teaching hospital with 2yrs history of

progressive painless jaw swelling. Visits to various hospitals got her treated with pain relievers and antibiotics because of a provisional diagnosis of infected parotid gland abscess. Limitation of jaw movement and slight pain was noted at presentation. On examination a disfigured face with a firm, non tender, non fluctuant mass was seen on the right aspect of the face. The overlying skin was freely mobile over the mass. Examination of the other systems was not significant. Laboratory work up was also not significant. A plain skull radiograph (anterior/posterior/lateral) showed an expansile multicystic left jaw lesion with thinning of the mandibular bone and soft tissue swelling giving the “soap bubble” appearance. It shows mild sclerosis of its left margins (Fig 1).

A differential diagnosis of amenoblastoma, fibrous dysplasia, dentigerous cyst, Burkitt lymphoma of the jaw was made. Patient was

referred to the orthopedic surgery unit where she had curettage and enucleation with grafting of the affected mandible and jaw.

Histology confirmed amenoblastoma.



Figure 1

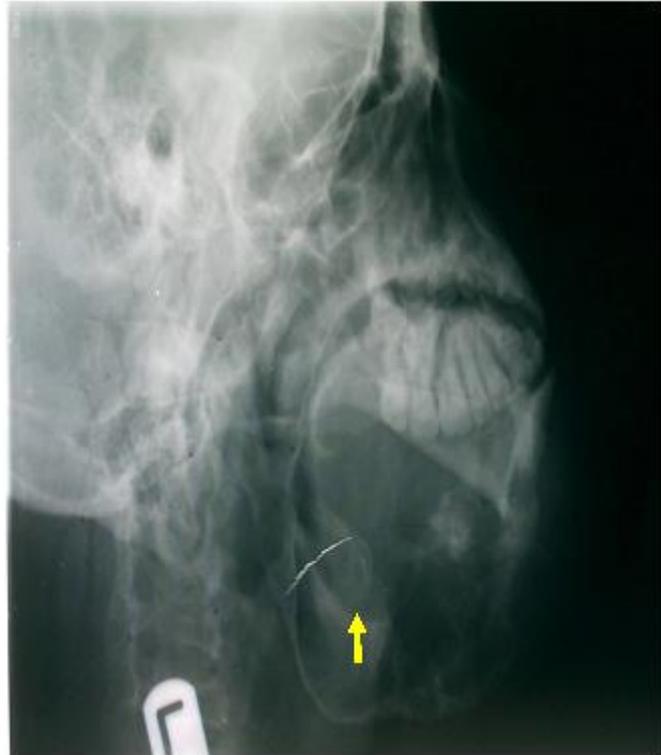


Figure 2

Plain radiographs of the skull showing an expansile radiolucent lesion with areas of Sclerotic foci and destruction of the mandible (Thin arrow) and thinning of its cortical outline, the “egg shell appearance” (Thick arrow).

Discussion

Amenoblastoma has over the years been classified under the odontogenic group of tumors derived from epithelial/mesenchyma elements of the tooth forming apparatus. Three clinical types have been documented: the solid or multicystic type, the unicystic type and the rare peripheral type⁵. The multicystic type has been found to be more common¹. Its gross grotesque disfiguration of the face due to its extensive size has made it a significant jaw lesion in Nigerians⁶. In a study done in Nigeria, Adeleye et al³ showed the mandible as a preferred site as seen in this patient. A specific site in the mandible is the anterior aspect of the ramus of the molar⁷ and noted in this patient. No specific etiology has been purported (idiopathic cause) but trauma is a predisposing

factor not elucidated in patient. Most presentations are those of a slow growing, persistent tumor initially painless but becomes painful with more obvious facial swelling, malocclusion, tooth involvement, secondary tooth infection or unusual involvement of maxilla as in the patient. Plain radiographs of the face/skull are usually very informative in patients with amenoblastoma. A soap bubble expansive radiolucent lesion with thinning of the mandible which may show areas of calcification within it are usually noted^{1,3}. This was seen in patient. Cortical fractures are also often demonstrated. However, imaging modalities such as computed tomography (C.T) and magnetic resonance imaging (MRI) may be used and are usually more informative. These were not done in this patient due to financial reasons and non-

availability in our centre at the time of presentation. The ability of C.T to delineate surrounding bone and soft tissue would have helped better but limitations as mentioned above impaired its use. Ultimate diagnosis of amenoblastoma is by histology from biopsy as was done in the patient. The latter shows majorly epithelial/mesenchyma element of tooth forming apparatus. Treatment of the multicystic jaw amenoblastoma is resection of the tumor with inclusion of about 1 or 2cm of apparently uninvolved bone to reduce chances of recurrence.⁸ which was done in this patient. Radiotherapy has also been advocated but increased risk of malignant degeneration has reduced its use.⁹ Recurrence has been reported but commonly associated with incomplete recession.¹⁰

Summary

A 20yr old female who presented with 2year history of initially painless swelling of the left jaw and associated limited movement. Plain radiograph showed a multiloculated expansile radiolucent lesion with thinning of its outline and areas of calcification was seen within it. Histology confirmed Amenoblastoma. She had surgical excision and curettage with grafting and has been stable after subsequent follow up.

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