

## Ameloblastoma: A Rare Case Report In Female Child

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Ameloblastoma is the most common benign odontogenic tumors of the jaws that constitutes about 1% of all cysts and tumors of the jaws. It is generally a painless, slow growing, locally aggressive tumor causing expansion of the cortical bone, perforation of the lingual or the buccal cortical plate and infiltration of the soft tissues. It has peak incidence in third and fourth decade of life but rare in children age group with equal gender predilection (1:1). The relative frequency of mandible to maxilla is reported to be varying from 80–20% to 99–1%. In the mandible majority of Ameloblastomas are found in the molar ramus region.

**INTRODUCTION**

The ameloblastoma consistent with the classification of odontogenic tumors by WHO in 2005, is assessed as a benign neoplasm of odontogenic epithelial origin (Barnes et al., 2005). One to 3 percent of tumors and cysts of the jaws are comprised of ameloblastomas (Small & Waldron, 1995; Reichart et al., 1995). Ameloblastoma is that the commonest odontogenic tumor (OT) in Africa (Arotiba et al., 1997; Ladeinde et al., 2005) and Asia (Wu & Chan, 1985) but is that the second commonest in South and North America (Regezi et al., 1978; Ochsenius et al., 2002). Ameloblastoma can theoretically arise from remnants of the dental lamina, enamel organ of developing tooth, the epithelial lining of odontogenic cyst or basal cells of the oral mucosa (Crawley & Levin, 1978; Leider et al., 1985). It occurs in most age groups, but mainly diagnosed within the third or fourth decade of life. Most cases (66%) affect the posterior mandible and ramus (Neville et al., 2008). Ameloblastomas are usually asymptomatic and present as a slow growing facial swelling or as an incidental radiographic finding. Despite being a benign neoplasm, it's locally destructive and features a high rate of recurrence if not completely removed (Hong et al., 2007). The three clinical and radiographic presentations which have different prognostic and therapeutic considerations can include: 1) solid/ multicystic (86% of cases); 2) unicystic (13% of cases); 3) peripheral (1% of cases) (Neville et al.). Its classic radiographic presentation is that of a multilocular radiolucency. The expansion of the buccal and lingual cortices of bone, with the likelihood of bone perforation and soft tissue extension is usually observed. The resorption of roots of adjacent teeth is common and is usually related to an unerupted tooth. Most often, it's the mandibular third molar area which is involved (Dunfee et al., 2006). However, the solid/multicystic ameloblastoma may appear radiographically as a unilocular lesion resembling other cystic lesion (Hong et al.).

The clinico-pathologic characteristics are of a benign

lesion with a slow growth pattern, but locally invasive. The clinical behavior are often considered between a benign and malignant lesion, and therefore the high rate of recurrence is a crucial factor when determining the management of the lesion (Chapelle et al., 2004). Therefore, the selection of treatment should be assessed supported the lesion's clinical type (solid/multicystic, unicystic, peripheral), the situation and size of tumor and patient's age. The spectrum of treatment described within the literature range from simple bone curettage to segmental resection, but there are few criteria for treatment supported retrospective studies published. During this report we present the weird case of a solid/multicystic ameloblastoma within the mandible of a 14-year-old girl. Additionally, a quick review of the literature on reported cases of this pathology in children is additionally presented.

**Case summary:** The patient is a 14-year-old Hispanic female, without history of medical conditions. She was consulted to the Oral and Maxillofacial Surgery Clinic at the University Pediatric Hospital (UPH) at the Medical Center in San Juan, Puerto Rico, due to a painless facial swelling in the left perimandibular area with three months of evolution. Extraoral clinical examination showed a mild facial swelling over the body of the left mandible, which was firm to palpation with a normal overlying skin. Intraorally, the exam was remarkable for a buccal and lingual expansion of the mandibular left body, tender to palpation and covered with normal, healthy mucosa. There were neither palpable neck masses nor lymphadenopathy and all cranial nerves were intact. The remaining physical exam was within normal limits. The patient had no relevant medical history and was taking no medication. The panoramic and maxillofacial computed tomography (CT) requested revealed an extensive unilocular and radiolucent lesion with diffuse margins, localized to the left mandibular body extending from the canine to the first molar (3.6 cm antero-posterior and 2.3 cm width) and including the second premolar inside the lesion.

A 14-year-old female child reported with a swelling on the left side of the face since 1 year and pain while chewing food since 4 months. The swelling was insidious in onset and gradually increased to the present size. There was no history of trauma or toothache or decrease in the size of the swelling or any discharge from the swelling. The patient was experiencing pain while chewing.

**DISCUSSION**

Ameloblastoma is uncommon in children. The most commonly cited article is a review of 1,036 cases, where the average age was 38.9 years with only 2.2% (19 of 858) under 10 years and 8.7% (75 of 858) between 10 and 19 (Small & Waldron). However, this report was

published in 1955 when adenoameloblastoma and ameloblastic fibroma were considered ameloblastomas. The first report of ameloblastoma in children was in 1962, where 7 cases were reported in children under the age of 9 years old but 2 of these cases were ameloblastic fibromas and 1 case odontoameloblastoma (Young & Robinson, 1962). Ord et al. (2002) made a review of reported cases of ameloblastomas in children from 1970 to 2001, comparing Western and African reports. This review showed an average age of 14.3 years (Western) and 14.7 years (African) and confirms that less than 10% of cases occur in children under 10-

years-old. In adults, the gender ratio is 1:1. In Western children the ratio is 1:1.2 for male/female. While in African children, there is a male predominance of 1.4:1. The mandible is the most affected in adult ameloblastomas (85%), the third molar region being the most common site.

**Conclusion:** Ameloblastoma is most common benign odontogenic tumor of jaw. It has peak incidence in 3rd and 4th decade but rare in childrens age group with equal gender predilection.

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