GLANDULAR ODONTOGENIC CYST: ANALYSIS OF 46 CASES. C. Fowler, R. Brannon, H. Kessler, J. Castle, M. Kahn. Wilford Hall Medical Center, Lackland Air Force Base, Texas, Louisiana State U Health Sciences Center School of Dentistry, New Orleans, Baylor College of Dentistry, Dallas, Texas, Naval Postgraduate Dental School, Bethesda, Md, Tufts U School of Dental Medicine, Boston, Mass.

The glandular odontogenic cyst (GOC) is now a well known entity, and although numerous histopathologic features have been described, the exact criteria for diagnosis have not been universally accepted. Furthermore, some features of GOC may also be found in dentigerous, botryoid, radicular, and surgical ciliated cysts. The purpose of this multicenter retrospective study was to further define the clinical, radiographic, and microscopic features of GOC and to determine which microscopic features are necessary for diagnosis of GOC in problematic cases, such as dentigerous cysts with metaplastic changes. In our series of 46 cases, the mean age at diagnosis was 51 years, with a peak in the fifth-seventh decades; 80% of cases occurred in the mandible and 60% involved the anterior portion of either jaw. Most cases presented as either a unilocular or a multilocular radiolucency associated with the root(s) of teeth. Cases also presented in dentigerous, lateral periodontal, and globulomaxillary relationships. All cases were treated conservatively (enucleation, curettage, cystectomy, excision). Follow-up of 17 cases revealed a recurrence rate of 41.1% (7/17), with 5 cases recurring more than once (range of follow-up 2 months to 20 years, mean 8.75 years). The mean interval from initial treatment to first recurrence was 96 months, and from first recurrence to second recurrence 70 months. All cases exhibited eosinophilic cuboidal (hobnail) cells, a feature necessary for diagnosis in our opinion. The presence of ductlike spaces (microcysts), epithelial spheres, clear (vacuolated) cells, variable thickness, and multiple compartments appears to be most helpful in distinguishing GOC from GOC mimickers in problematic cases (P < .0005).


Odontogenic carcinosarcoma is an extremely rare aggressive tumor of the jaw bones. There have been only 4 earlier cases published in the literature. The limited information available indicates that the tumor is more common in the mandible, has a broad age range (19-63 years), no gender predilection, and high propensity for metastasis. We present a case of a healthy 9-year-old girl who presented to her general dentist for evaluation of a radiolucent lesion of the mandible extending from the distal to right mandibular first molar to the right retromolar pad area. Biopsies done at another institution were diagnosed as ameloblastoma. The lesion was treated by curettage. Several months later, she presented to an oral surgeon with a swelling of the right side of the face and associated facial asymmetry. Imaging studies revealed a lesion that again extended from the right second premolar area to the retromolar area. Perforation by tumor of both mandibular cortices was evident. A partial mandibulectomy with immediate reconstruction was performed. At this time, the lesion was diagnosed as odontogenic carcinoma. Because of the rarity of the diagnosis, slides were sent in consultation to the oral pathology laboratory at New York Hospital Queens, which established a diagnosis of odontogenic carcinosarcoma based on the histopathologic picture as well as immunohistochemical stains. The patient experienced 2 recurrences with unsuccessful interventions. Because chemotherapy yielded only a 50% tumor response, radiation therapy was initiated. A gastrotomy was performed to improve the patient’s nutrition, but she died of complications of her tumor 2.5 years after presentation.


Ameloblastoma is a locally aggressive epithelial odontogenic neoplasm most commonly occurring in the mandible. Owing to its anatomic position, the inferior alveolar nerve often lies alongside of or is encompassed by the tumor. No case of invasion into the nerve itself by ameloblastoma has been reported. Because most treatment protocols suggest 1-cm tumor-free margins, mandibular resection is often performed. However, somewhat contradictorily, some contend that the alveolar canal is not compromised by the tumor and thus advocate inferior alveolar nerve preservation via the pull-through procedure. We report a case of a 63-year-old woman who had a jaw lesion of unknown diagnosis treated by an oral surgeon 30 years before. An incisional biopsy of a 3–4-cm multiloculated radiolucent lesion was performed in July 2009 and the diagnosis of ameloblastoma rendered. The lesion was then resected with 1-cm margins past the radiographic limits of the tumor. Histopathologic examination revealed nests of ameloblastoma within 120 μm of the neurovascular bundle. Because a pull-through procedure involves the entire neurovascular bundle, the question arises of what is the minimal tumor-neurovascular bundle distance to assure surgical free margins. We think the 120 μm reported is too close to predict the surgical certainty of the neurovascular bundle pull-through procedure. These findings may alter the guidelines for safe tumor surgery principles regarding the preservation of the inferior alveolar nerve.

AMELOBLASTOMAS IN AN ORAL PATHOLOGY SERVICE IN MEXICO CITY IN 2009. B. Aldape, B. Cruz Legorreta, F. Ocampo Acosta, C. Liceaga, R. Liceaga. U Nacional Autonoma de México, Mexico City, U Autonoma de Baja California, Hospital Juárez de México, Mexico City.

Background. A study of the frequency of odontogenic tumors in Mexico City in 1997 reported 349 odontogenic tumors, 87 (23.7%) of which were ameloblastomas. A similar but regional Latin-American multicentric study published in 2007 reported 163 ameloblastomas representing 22.7% of all odontogenic tumors. The present study is based on 12 ameloblastomas diagnosed among a total of 741 cases accessed in 2009.

Objective. The aim of this study was to analyze the clinical-pathologic features of these 12 cases.

Results. The 12 ameloblastomas represented 1.6% of the total biopsies in our service; 8 cases (67%) were unicystic, 2 cases (17%) solid, 1 case (8%) ameloblastic carcinoma, and 1 case (8%) peripheral desmoplastic ameloblastoma. The age range was between 17 and 86 years. Eight cases were found in men and localized in the mandible. Almost all of the cases were treated with radical hemimandibulectomy. The peripheral desmoplastic ameloblastoma was treated by surgical curettage.

Conclusions. The diagnosis in all of these cases was delayed,