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 glossectomy 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,

Background. Mantle cell lymphoma (MCL) is an aggressive B-cell lymphoma characterized by overexpression of cyclin D1 and t(11;14) chromosomal translocation. MCL has often been characterized by a poorer prognosis compared with other subtypes of non-Hodgkin lymphoma. It has been reported infrequently in the oral cavity.

Study design. Three new cases of MCL occurring on the hard palate are presented. The clinicopathologic and immunohistologic features, genesis, prognosis, and treatment for this entity are reviewed along with a summary of 11 previously reported cases of MCL occurring in the oral cavity.

Results. The average age of patients with MCL was 70.9 years, with 71% occurring in men and 29% in women. The most common location was the palate (60%), followed by the tongue (26%) and the gingiva and floor of mouth (6.7% each). Typically, MCL displays uniform positive reactivity with CD20 and cyclin D1, and some variations are seen with other markers. Significant variation has been reported in the clinical presentation, treatment options, and outcomes.

Conclusion. Clinicians and pathologists should be cognizant of MCL presenting in the oral cavity and should be aware of the salient clinicopathologic characteristics and poorer prognosis associated with this entity.


Papillary hemangioma (PH) is a recently described benign cutaneous vascular lesion with histopathologic similarities to glomeruloid hemangioma. A predilection for the head and neck region has been reported, and although affecting a wide age range, most cases have occurred in adults (mean age sixth-seventh decades). A 71-year-old caucasian male presented with an asymptomatic lesion of several months duration located on the labial-attached gingiva between teeth #27 and #28. Clinically, the lesion was described as a 0.5 cm, sessile, smooth, and slightly translucent swelling that was firm to palpation. An excisional biopsy was performed, and the specimen was submitted with a clinical diagnosis of gingival cyst. Microscopic examination revealed several prominent ectatic vascular channels enclosing papillary and anastomosing intraluminal proliferations of capillaries and endothelial cells. The endothelial cells frequently contained numerous, variably sized periodic acid–Schiff-positive, and diastase-resistant cytoplasmic hyaline globules that occasionally distorted or obscured their nuclei. Lesional cells were uniformly positive for expression of CD31 and CD34 with more limited, primarily perivascular, expression of smooth muscle antigen. To our knowledge, this is the first report of papillary hemangioma presenting in the oral cavity. The distinction of PH from glomeruloid hemangioma may have clinical relevance, because the latter diagnosis is considered by some authorities to be specific for POEMS syndrome (polyneuropathy, organomegaly, endocrinopathy, m-protein, skin changes).

INTRAVASCULAR FASCIITIS: REPORT OF AN INTRAORAL CASE AND REVIEW OF THE LITERATURE. A. Chi, M. Richardson, W. Dunlap Jr, B. Neville. Medical U South Carolina, Charleston, Anderson, SC.

Intravascular fasciitis (IF) is an unusual variant of nodular fasciitis. It is characterized by intraluminal, intramural, and extramural involvement of small to large arteries or veins. Only 3 cases involving the oral cavity have been reported previously in the literature. We present here an additional case of IF arising in the submucosa of the upper lip of a 20-year-old woman. Microscopic examination showed a well circumscribed nodular proliferation of spindle cells arranged in intersecting fascicles. Occasional multinucleated giant cells also were noted. The tumor was present within the lumen of an intermediate-size artery and extended into adjacent smaller vessels, thereby creating a multinodular appearance. Extramural extension into the surrounding connective tissue also was observed. Immunohistochemical stains showed the tumor cells to be positive for smooth muscle actin and negative for S-100 protein. The multinucleated giant cells were positive for CD68. CD31 and CD34 immunostains exhibited no reactivity among the spindle cells but highlighted a prominent capillary network within the background. Out of 28 cases of IF reported thus far (including the present case), the majority (n = 21) have arisen in individuals in the first-third decades; there is a 1.3:1 male:female ratio. Sites of involvement include the head and neck (n = 11), upper extremity (n = 8), lower extremity (n = 7), and trunk (n = 2). Conservative excision is standard treatment, although local recurrence has been reported in 3 cases. It is important for the pathologist to be aware of this lesion to avoid misdiagnosis as a sarcoma with angioinvasion.


Glomus tumors are uncommon, benign neoplasms which are commonly seen in the extremities, particularly in the sublingual region of the finger and less common intraorally. The exact origin of glomus tumors is still uncertain. In the literature, some researchers have suggested that the perivascular tumors recapitulate the appearance of the modified myoid cells that support or invest blood vessels, and others have claimed that the term paraganglion is most appropriate because cells of the carotid body originate from the neural crest and migrate in close association with autonomic ganglion cells. This study is a trial to give more attention to the histopathologic aspect of this relatively rare tumor within the head and neck region and to try to find out its pathogenesis. Twelve specimens of the tumor were collected. Six cases were carotid body tumor, 2 were in the submandibular region, and 4 in the tongue. Histochemical and immunohistochemical analyses were performed. The glomus cells stained positive with Gomori reticulin stain, with the presence of intracellular fine fibrils taking different arrangement and thickness. This would suggest that the origin of glomus tumors could be either pericytes or smooth muscle. On the other hand, all sections showed positive reaction to smooth muscle actin as well as collagen type IV antibodies, which suggests that the origin of