METROPOLITAN VETERINARY ASSOCIATES
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newsletter

ISSUE: VOLUME 4 • NUMBER 3 FALL – NOVEMBER 2015

TREATMENT OPTIONS FOR ORAL TUMORS

CANINE ACANTHOMATOUS AMELOBLASTOMA

Canine acanthomatous ameloblastoma has been classified as a benign gingival mass that arises from the periodontal ligament, otherwise known as an odontogenic tumor.[1] It differs from the other odontogenic tumors in that it is locally aggressive and usually invades the underlying mandible or maxilla in which it is located.[1-5] It is considered benign because it does not metastasize, but has a high chance of recurrence if incompletely excised.[6] The mean age of onset varies among the literature, but is usually between 8-10 years of age.[1,3,6] No sex predilection has been determined.[1,5] The most common breeds affected are the Shetland and English Sheepdogs.[1,5]

Corinne Durand, DVM

SPECIALTY SPOTLIGHT

IS CANINE ACANTHOMATOUS AMELOBLASTOMA (CAA) AN EPULIDE?

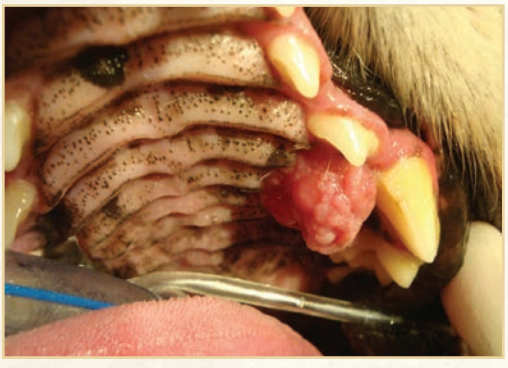
The term epulide has been incorrectly used to describe any gingival mass effect within the oral cavity. It is purely descriptive in nature, requiring histopathology for a real description of these lesions. Epulides have been reclassified several times over the years.[2,3,4] Originally they were compared to the human equivalent of the peripheral odontogenic tumors in which 3 main types are described in the literature: fibromatous, ossifying and acanthomatous epulides.[2,3,4] The term acanthomatous ameloblastoma has evolved over the years as well from adamantioma to peripheral ameloblastoma because of its similarities to the human equivalent in histologic appearance.[2,3,4] Both masses histologically appear as islands or cords of squamous epithelium invading the connective tissue stroma irregularly with palisades of basal cells.[2,5,7] However, human peripheral ameloblastoma does not invade bone. It was also compared to the human intraosseus ameloblastoma due to its clinical behavior being locally aggressive and invading bone.[2,3] One study compared acanthomatous ameloblastoma to basal cell carcinoma due to their similaries microscopically, calling them histologically identical.[7] As there is no comparable tumor both histologically and behaviorally, this epulide is currently referred to as Canine Acanthomatous Ameloblastoma (CAA).[1,3]

HOW CAN CAA BE DIAGNOSED?

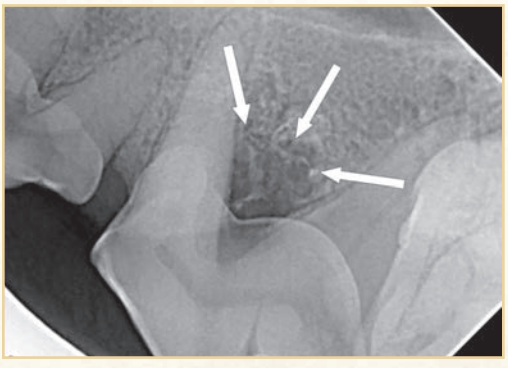
The most common method for diagnosis of CAA is dental radiographs and an incisional biopsy. Other diagnostic imaging is being pursued because bone lysis is not evident until 40% or more of the cortex has been demineralized.[1] Therefore, computed tomography or magnetic resonance imaging can be more accurate in staging and planning surgical margins for many oral neoplasms.[1]

WHAT ARE THE TREATMENT OPTIONS AND SURVIVAL TIMES FOR CAA?

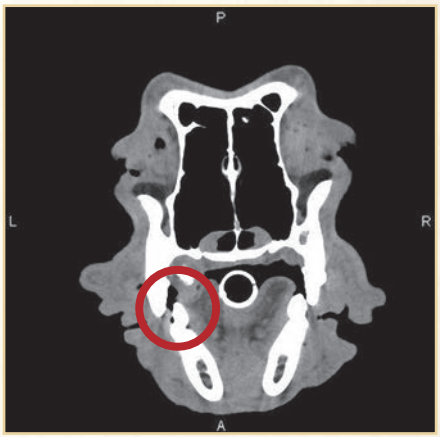
Once a diagnosis has been made, surgical excision via mandibulectomy or maxillectomy is the standard treatment option. A minimum of 1cm



2cm x 1cm ulcerated, friable, multilobulated mass over the palatal aspect of the left maxillary fourth premolar (#208) diagnosed as a Canine Acanthomatous Ameloblastoma via incisional biopsy.



Dental radiograph revealing inter-radicular bone loss over the furcational area of the left maxillary fourth premolar (#208), indicated by the white arrows.



CT scan image revealing an aggressive soft tissue mass with osteolysis and bony production involving the maxilla and underlying alveolar bone adjacent to the left maxillary fourth premolar (#208), indicated by the red circle.

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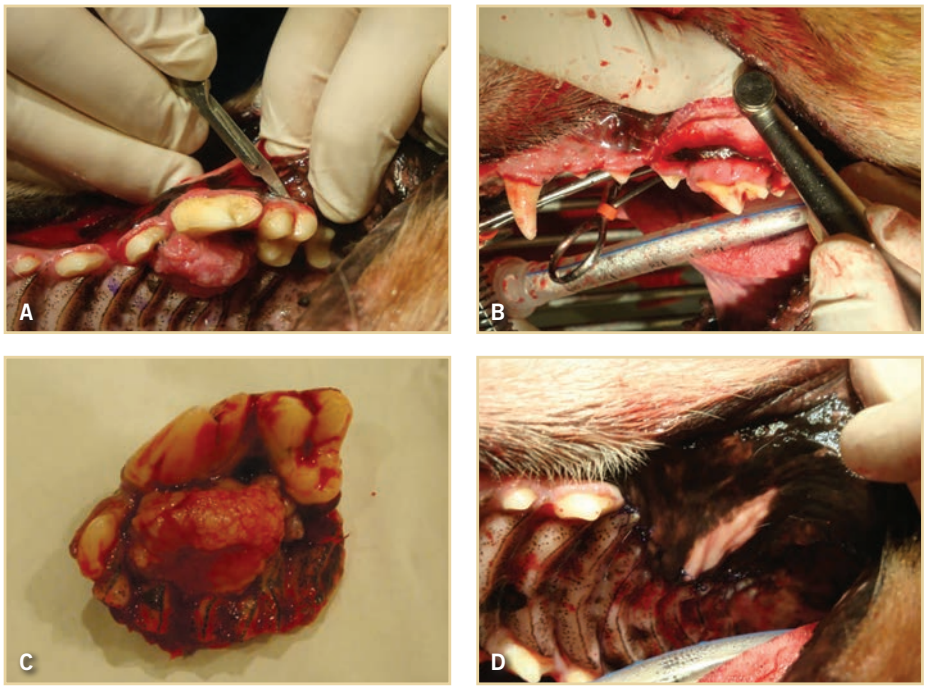


Segmental Maxillectomy:

A: Full thickness incision into the mucosa and submucosa of the excision site.

B: Maxillectomy being performed with a 2mm surgical round burr on a high-speed water cooled handpiece.

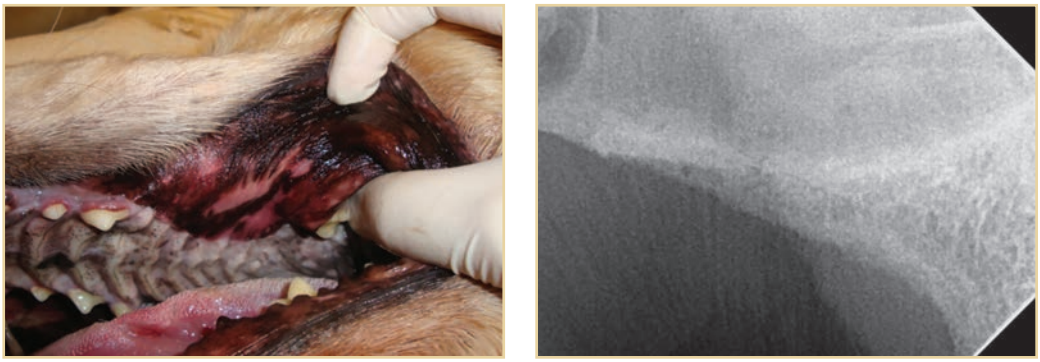
C: Enbloc sample submitted for histopathology.

D: Final incision closure

margins are recommended for all benign neoplasms.[1,8] The literature notes that the most common location for this type of neoplasm is the rostral mandible. One study revealed that it occurs in the rostral mandible (41%), caudal mandible (29%), rostral maxilla (24%) and in the caudal maxilla in only 6% of cases.[5] Prognosis with complete surgical excision in one study was greater than 2 years and in another 52 months.[6,7] In general the recurrence rate for CAA is extremely low. Therefore early diagnosis and surgical excision are ideal for a good prognosis.

Other treatment options are available for CAA. One is chemotherapy with intralesional bleomycin. A study revealed that 6 of 7 dogs had a complete response and no recurrence at a little over 2 years, though the patients were treated for 4 months before the response was seen.[9] The study also revealed side effects limited to wound formation.[9] Another treatment option is radiation therapy. Radiation therapy has shown to keep 80% of dogs tumor free for approximately 3 years with a recurrence rate between 8 and 18%.[1] One study revealed that 3.5% of irradiated patients develop a second tumor, usually a sarcoma, in the radiation field which significantly decreased their survival times.[10] Though other treatment options are available, surgical excision remains the gold standard treatment option.

After surgical excision is completed with clean margins, dental radiographs should be taken 6 months post-operatively to confirm no regrowth.



Surgical excision site completely healed 6 months post-operatively. Dental radiograph showing no evidence of regrowth.

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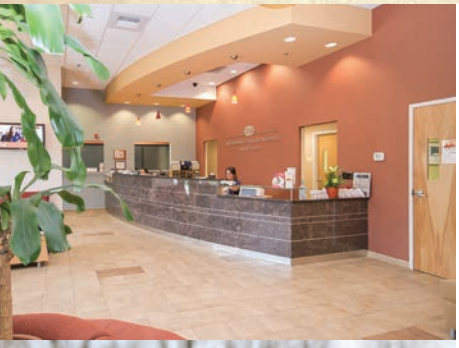
PET LOSS SUPPORT GROUP

Many of our employees understand the depth of loss experienced when a beloved four-legged family member passes. For that reason, Metropolitan provides a pet loss support group to help grieving owners in need. Our support group is designed to provide grieving pet parents with a safe, confidential environment to share their feelings with others who have experienced pet loss.

Meetings are held once a month onsite at Metropolitan and are free of charge for your clients (all family members are invited to attend). The group is led by Dr. Cari Thomson and co-led by psychiatrist Dr. Carol Tavani.

Please contact us at 610.666.1050 if you would like to have Pet Loss Support Group brochures mailed to your office. Clients are able to visit our website to find meeting dates and times, general information and recommendations on obtaining help outside of the group setting.

Pet Loss Support Group meetings are held the first Thursday evening of each month for your clients *(and are free of charge).*



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BY: Risa Roland, DVM, DACVIM (Cardiology)
WHEN: Thursday, December 3, 2015
TIME: Registration: 6:00pm, Lecture 6:30pm – 8:30pm
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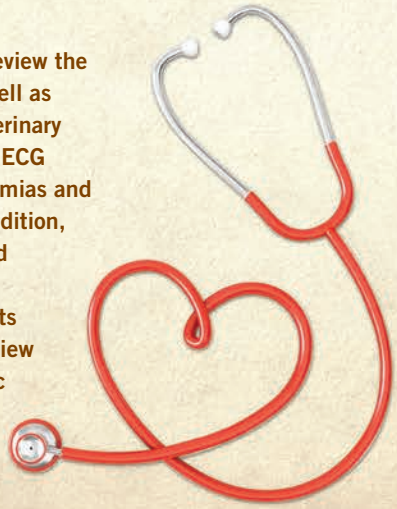
The objective of the lecture is to review the electrical activity of the heart as well as common ECGs encountered in veterinary practice. The lecture will focus on ECG interpretation, diagnosis of arrhythmias and clinical signs of arrhythmias. In addition, we will review common cardiac and non-cardiac diagnostic tests performed to aid in treating patients with arrhythmias. We will then review the treatments for common cardiac electrical abnormalities as well as anti-arrhythmia medications.



JOINING OUR TEAM

Reid Groman, DVM, DACVIM, DACVECC

Dr. Reid Groman is a native of Long Island, NY. He obtained his Bachelor's degree from Binghamton University (SUNY) and began his veterinary career after receiving his DVM from Colorado State University in 1994. After graduation, he did an internship at Texas A&M University from 1994-1995. He worked in general practice in Long Island, NY for 2 years following his internship.

Dr. Groman returned to Texas A&M for an Internal Medicine Residency from 1997-2000; then pursued a fellowship in Critical Care medicine form the University of Pennsylvania from 2000-2001. He also pursued a fellowship in Renal medicine and hemodialysis from the University of California Davis in 2002.

He was a part of the clinical faculty at the University of Pennsylvania from 2002-2010. From 2010 – 2014 Dr. Groman worked as a clinician on the Critical Care Service at Northstar VETS in NJ and Veterinary Specialty Center of Delaware. We welcomed him to Metropolitan in 2015.