

# **APEX**

## **DOG & CAT DENTISTRY**

Specializing in Veterinary Dentistry and Oral Surgery

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### **ORAL FIBROSARCOMA**

#### **Biologic Behavior**

- oral FSA is the 3rd most common canine oral tumor with an incidence of 7.5%-25.0%
- median age 7.3-8.6 years, but 25% dogs are < 5 years
- sex predisposition: ± male with a male-to-female ratio of 1.4-2.8:1
- site predilection: gingiva (usually on maxillary arcade between the canine and carnassial teeth) (56%-87%), hard palate (7%-17%), and buccal or labial mucosa (4%-22%)
- gross appearance: flat, firm, ulcerated, multilobulated, and deeply attached
- locally invasive into the gingiva and bone with local tumor recurrence after surgical excision common
- 60%-65% dogs have radiographic evidence of bone involvement
- metastasis to the regional lymph node in 19%-22% and lungs in 6%-27% dogs

#### **Treatment**

- surgical techniques: mandibulectomy and maxillectomy
- FSA is poorly responsive to radiation therapy and chemotherapy
- radiation therapy can be used alone or in combination with surgical excision, but is considered palliative
- no known effective chemotherapeutic agent, but doxorubicin and piroxicam may have some effect

#### **Prognosis**

- local control is more important than metastatic disease with local recurrence the most common cause of death
- high-grade anaplastic oral FSA have a higher metastatic potential than low-grade FSA
- MST for both mandibular and maxillary oral FSA following surgical resection: 11 months with 12-month survival rate 25%-40% and local recurrence rate 46%
- MST following mandibulectomy: 10-12 months with 12-month survival rate 50% and local recurrence rate 10%
- MST following maxillectomy: 11-12 months with 12-month survival rate 21% and local recurrence rate 33%
- radiation therapy: MST 6-26 months
- radiation therapy and hyperthermia: 12-month survival rate 50%

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### **HISTOLOGICALLY LOW-GRADE BUT BIOLOGICALLY HIGH-GRADE FIBROSARCOMA**

#### **Biologic Behaviour**

- histologically low-grade but biologically high-grade FSA occurs predominantly in the maxilla (72%) of large breed dogs, especially Golden Retrievers (54%)
- histological appearance is benign (i.e., fibroblast proliferation with abundant production of collagen) and can often be interpreted as fibroma or low-grade FSA
- 72% dogs have radiographic evidence of bone lysis
- metastasis to the regional lymph node in 20% and lungs in 12% dogs

#### **Treatment**

- surgical treatment: mandibulectomy and maxillectomy
- radiation therapy can be used alone or in combination with surgical excision, but is considered palliative
- no known effective chemotherapeutic agent, but doxorubicin and piroxicam may have some effect

#### **Prognosis**

- survival depends on early diagnosis and aggressive treatment
- prolonged survival times can be achieved with surgery, surgery and radiation therapy, radiation therapy alone, and radiation therapy and hyperthermia

FSA - fibrosarcoma

MST - mean survival time