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FELINE HEAD AND NECK TUMORS

Head and neck tumors are relatively common in cats. An understanding of the differentials in this anatomic location is very important as the diagnostic and therapeutic approach may vary. Squamous cell carcinoma (SCC) is the most common tumor of the feline oral cavity. Approximately 60-70% of feline oral tumors are SCC, whereas approximately 10-20% are fibrosarcomas and 10% are other tumors (epulis, lymphoma, adenocarcinoma, osteosarcoma, etc.). The median age of cats with oral SCC is 11-13 years, however, cats as young as three years and as old as twenty-one years have been previously reported.

Feline oral SCC can have a variety of presentations. Most cases present with a mass in the mouth noted by the owner, however, others can present for halitosis, weight loss, dysphagia or ptosis. Importantly, feline oral SCC lesions may have a true mass effect, whereas others can simply be erosive and/or erythematous. The presence of loose teeth in a cat should promptly alert the astute veterinary clinician to the possibility of bone lysis due to an underlying neoplastic process such as SCC.

The diagnostic workup for a cat with the suspicious diagnosis of oral SCC should include a thorough history, physical examination and oral examination (size, location, color, firmness, does it cross midline, etc.) entered into the clinical record. A minimum database including bloodwork, urinalysis and retroviral testing should be performed if not done within the previous month. In addition, three view chest radiographs should be obtained for examination of pulmonary metastasis, and fine needle aspiration and cytology performed if any local lymph nodes are palpable, asymmetrical or enlarged. Lastly, an incisional biopsy should be performed with histopathologic examination. The epithelium overlying some tumors can be hyperplastic, and therefore, the clinician must obtain deep incisional biopsies to allow the histopathologist to make the correct diagnosis. The simple submission of loose teeth for histopathological examination is routinely not sufficient for the confirmation of the diagnosis of oral SCC; procurement of the tissues deep to where the loose tooth was is strongly advised. Occasional cases may also require the use of computed tomography scanning or magnetic resonance imaging to delineate the best treatment protocol and prognosis; this is especially true in those cases suspected to have caudal pharyngeal, orbital and/or nasal cavity tumor extension.

Feline oral SCC is an extremely invasive and malignant neoplasm. Unfortunately, to date, therapies, or combinations of therapies that are substantially beneficial for feline oral SCC have not been found. The recurrence rate for cats with oral SCC treated with surgery alone is felt to be extremely high with a median survival time of less than 6 months, and this author believes a median survival time of 30-60 days is more likely. The exception to this are cats with extremely small oral SCC involving the rostral mandible that may be able to undergo rostral mandibulectomy, however, it must be stated that even these cases can have recurrence in the face of histopathologically-determined “clean” margins. In addition, the use of radiation therapy as a sole treatment modality has median survival times of < 3-6 months. Though relatively few reports exist on the sole use of chemotherapy for feline oral SCC, it too is generally felt to be minimally beneficial when used in this way. In fact, this author believes that the use of single modality therapy for feline oral SCC should be discouraged unless the tumor is a small rostral mandible SCC, or if the tumor is being palliatively treated with 3-6 large doses of radiation therapy.

Fibrosarcoma (FSA) is the second most common tumor of the feline oral cavity. Approximately 10-20% of feline oral tumors are FSA. FSA generally occurs in older cats (median age 10-12 years), however cats as young as one year of age and as old as 22 years have been reported. There does not appear to be any gender predisposition nor oral cavity site predilection, however, most cats with oral FSA have their tumors starting in the gingiva.

Other than the above descriptive data, there is relatively little clinical information on cats with oral FSA. Most cats with oral FSA will present for the same problems as cats with oral SCC; however, cats with oral FSA invariably will have a mass effect at the primary tumor site. The workup for the feline oral FSA patient is no different than that discussed above for oral SCC. Procurement of a deep incisional biopsy is recommended to best ensure a correct histopathological diagnosis.

Feline oral FSA are extremely invasive malignancies necessitating wide surgical extirpation. Though few reports exist concerning recurrence rates with feline oral FSA, minimal surgical excision generally results in recurrence. Unfortunately, aggressive surgical extirpation of these tumors with histopathologically determined “clean”

margins likely results in recurrence in 20-30% of cases due to their incredibly invasive phenotype. The routine use of radiation therapy in cats with large bulky oral FSA is generally discouraged. However, the use of radiation may be beneficial in cases with incomplete surgical resection for feline oral FSA, or if the radiation is being used palliatively (3-6 large doses). Similarly, the use of chemotherapy in this disease is generally discouraged due to the relative chemo-resistance of soft-tissue sarcomas. However, chemotherapy is occasionally used in cats with large oral FSA in an attempt to downstage the tumor for later surgical resection, or in cats with high-grade (and therefore greater chance for metastasis) oral FSA.

Additional information concerning other anatomic sites in the head and neck region of cats will be presented in the lecture (e.g. aural tumors, naso-pharyngeal/laryngeal tumors, cervical tumors, etc.)

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