**Feline Oral Squamous Cell Carcinoma**

**WHAT IS ORAL SQUAMOUS CELL CARCINOMA?**
Oral squamous cell carcinoma is cancer of the lining of the oral cavity, including the gingiva (gums), tongue, palate and tonsils. It is the most common oral cancer in cats. Tumors are locally invasive and can extend into the bones of the upper or lower jaw. The rate of metastasis at the time of diagnosis is low. The most common sites of metastasis are lymph nodes of the head and neck and the lungs.

**WHAT ARE THE CLINICAL SIGNS?**
The first signs of an oral tumor are often a perceived decreased or absent appetite and weight loss. However, cats are reluctant to eat because the tumor is painful, not because they aren’t hungry. They may approach their food bowl and attempt to eat, but only sniff at the food and not ingest it. You may note blood tinged saliva around their mouth, blood in the food/water bowl, or along your cat’s front paws. Your cat may show decreased grooming, have a foul odor to their breath, or show signs of facial or jaw swelling. Tumors are not always visible on an awake exam and painful cats will not permit their owners or veterinarians to get a good look in their mouths.

These signs often prompt veterinarians to recommend a dental cleaning, assuming “bad teeth” as the cause of signs. Tumors are more likely to be seen during a dental because cleanings are done under general anesthesia and your veterinarian can have a much better look in your cat’s mouth.

Unfortunately, most cats do not show any outward signs until the tumor is too large to be treated and owners have no way of knowing their cat has this disease.

**WHAT DIAGNOSTICS ARE PERFORMED?**
A thorough oral exam is the first step in diagnosing oral squamous cell carcinoma. A complete oral exam requires giving your cat a short acting sedative. While a needle aspirate of the mass is an option, a biopsy is a better option for providing a definitive diagnosis and should be done while the cat is sedated or under anesthesia. An incisional biopsy involves removing a small piece of tissue from the mass whereas excisional biopsy entails an attempt at removing the entire mass.

While it’s tempting to ask your veterinarian to remove the entire mass, given the locally invasive nature of these tumors, a CT scan is typically necessary to determine the extent of disease. Without a CT scan, there is a high chance the tumor will be removed incompletely and recurrence is likely.

Additional diagnostics include blood tests to assess overall health and chest x-rays for evaluation of disease spread. Regional lymph nodes should be palpated carefully and assessed cytologically, if possible.
TREATMENT OPTIONS AVAILABLE AND PROGNOSIS:

Surgery
Oral squamous cell carcinoma tumors infiltrate extensively through tissues and can invade into surrounding bone. Wide surgical resection is recommended given the high rate of local tumor recurrence with incomplete resection. For some tumors this means removing large portions of the cat’s jaw. This is often impossible given the size of the tumor relative to the size of the cat’s mouth. Cats with tumors located along the front portion of their lower jaw have a better prognosis because surgery is more likely to be an option. Owners should be prepared to discuss the need for a temporary feeding tube to assist their cat in maintaining nutrition during their recovery from surgery. Some cats need permanent feeding tubes.

Radiation Therapy
If a tumor is incompletely removed, definitive radiation therapy can help prevent or delay regrowth. Radiation therapy consists of daily treatments for several weeks. Side effects of radiation therapy include ulceration and irritation to the surrounding tissue. Each radiation treatment requires a brief period of general anesthesia. Alternatively, palliative radiation therapy can be administered to cats with non-surgical tumors. This may slow tumor growth and is less likely to cause side effects. This typically entails weekly treatments for 4-6 weeks, but protocols vary.

Chemotherapy
Chemotherapy options include injectable drugs (carboplatin, mitoxantrone, others) or an oral drug (Palladia®). Most tumors do not shrink with these treatments. For cats that are eating and drinking and engaging in normal behaviors such as grooming and interacting with owners, chemotherapy can be used to stabilize tumors and provide a prolonged good quality of life. While Palladia® is an attractive option because it is an oral drug given at home, owners must consider the difficulties associated with chronically medicating cats that are painful around their mouths.

Palliative Care
Palliative care consists of oral pain medications and anti-inflammatory drugs +/- radiation therapy. Administering medications is difficult because affected cats are sensitive around their mouths and usually not eating well. Feeding tubes can be placed to facilitate nutrition as well as to provide an avenue for administering medication. Owners must keep in mind that cats with oral squamous cell carcinoma that do not eat voluntarily are painful, regardless of whether there’s a feeding tube in place or not.

Prognosis
The prognosis for cats with oral squamous cell carcinoma is poor because of a lack of viable treatment options. The prognosis with surgery, chemotherapy, or radiation therapy is similar; about 2-4 months with less than 10% of cats surviving to one-year post-diagnosis. Overall prognosis depends on tumor location, size, and whether or not metastasis is present at the time of diagnosis.
WHAT ARE THE SIDE EFFECTS?
Side effects depend on treatment selected and the extent of disease and clinical signs. Surgery carries risk of anesthesia, though this is minimal. Owners should be prepared to use a feeding tube for a minimum of a few weeks post-operatively, and potentially permanently. Other risks include bleeding and complications from healing or infection.

Side effects of chemotherapy are infrequent and most commonly include temporary gastrointestinal upset such as vomiting or diarrhea. Decreased appetite and lethargy may also occur. Hair loss is rare, but cats tend to lose their whiskers. Radiation therapy includes the use of anesthesia during treatments and side effects include gastrointestinal upset (vomiting, diarrhea), local skin/tissue irritation, and potential interference with surgical healing.

Your cat will be prescribed supportive medications for nausea (manifested by decreased appetite, or increased salivation, or drooling) and diarrhea for you to have on hand at home to use if necessary. It is best to be proactive with these medications and provide these as soon as signs are noted. Should you have any questions, your oncology team is available to assist and to develop a tailored plan for your pet.

HOW DO I PREPARE?
We understand this is a difficult time and we are here to support you and your cat by providing the options and care necessary. Selecting a therapy is not binding and can be adjusted to you and your cat’s needs. During treatment sessions, you will be provided with updates and any recommendations depending on your pet’s response.

GETTING STARTED
Once you have determined the best therapeutic option for your pet, you will work with our oncology team to develop an appointment plan.

Scheduling: Patients undergoing treatments must have a scheduled appointment prior to arrival.

> Schedule your appointments at reception upon check out.
> Drop offs are requested between 7:30-8:30 am.
> Pick ups are requested by 4:30 pm.
> No discharges are done between 3:30 pm- 4:30 pm as our oncology team is in rounds.