



NASAL TUMORS

Nasal tumors make up ~1% of all cancers seen in dogs. It is thought that long-nosed breeds or dogs living in urban environments are at higher risk for the development of nasal tumors. Nasal tumors are seen less commonly in the cat.

The majority (two-thirds) of nasal tumors are carcinomas. Sarcomas make up the remaining tumor types. Lymphoma may also be seen in the nasal cavity; it occurs more commonly in cats than in dogs. Nasal tumors occur more commonly in older animals.

What are the signs of a nasal tumor?

Symptoms may include an intermittent and progressively worsening nasal discharge or bleeding from one or both nostrils. Facial deformity can be seen in some cases. On rare occasions, animals may present with only neurological signs due to direct invasion into the brain cavity. Transient improvement in clinical signs is often noted with symptomatic treatments such as antibiotics, antihistamines and steroids, which often delays diagnosis.

How are nasal tumors diagnosed?

Other diseases of the nasal cavity such as fungal infections, foreign bodies, and allergies have symptoms similar to nasal tumors. Systemic bleeding disorders caused by low platelet numbers or clotting factor disorders may also manifest as nasal bleeding. Thus, a definitive diagnosis of intranasal cancer requires a tissue biopsy. Routine bloodwork and clotting times will rule out bleeding disorders and assess your pet's overall health prior to biopsy of the nasal cavity.

Computerized tomography (CT) is the ideal way to diagnose and plan treatment of intranasal cancer. CT can indicate the presence of a tumor and the extent of the tumor, especially as it relates to invasion into the brain cavity and around the orbit of the eye. A tissue biopsy can be planned based on the location of the tumor identified from the CT. A nasal biopsy is easily procured by passing a forceps up the nostril and into the tumor. Mild to moderate bleeding is expected and usually subsides within minutes. You may notice increased discharge from the nose that may be blood tinged for several days following the biopsy. Some dogs may have increased nasal congestion or noise for several days following the biopsy.

Although a CT scan is ideal, occasionally, x-rays of the nasal passage and/or rhinoscopy may be utilized to evaluate the extent of disease and to obtain a biopsy.

Once a diagnosis of a nasal tumor is made, x-rays of the lungs are recommended to evaluate for metastases. Needle aspirates of the local lymph nodes may also be recommended if the



lymph nodes are abnormal in size or consistency. Your doctor may also recommend an abdominal ultrasound to complete staging.

How are nasal tumors treated?

Dogs and cats with nasal tumors usually present with a relatively advanced stage of the cancer in a critical location near the brain and eyes. Invasion into bone often occurs early and curative surgery is not possible. Chemotherapy alone yields only a 30% response rate and responses are short-lived.

Radiation therapy is the treatment of choice in dogs and cats with intranasal cancers. Radiation therapy has the advantage of treating the entire nasal cavity, including any bone that is involved. Radiation therapy will result in improvement or resolution of clinical signs in the majority of patients. Radiation therapy is performed on a daily basis, Monday through Friday, for 3 weeks. The eye on the same side as the nasal tumor is included in the treatment field. When possible, the opposite eye is completely or partially blocked from radiation. The eye(s) in the radiation field may have decreased tear production requiring daily eye medications. In addition, cataracts eventually (6 months to 1 year after radiation) will form in any eye in the radiation field and will limit vision. Please see the Radiation Therapy handout for more detailed information.

What is the prognosis for nasal tumors?

Nasal cancer in dogs and cats is not curable. However, patients undergoing radiation therapy can achieve clinical remission with good quality of life.

For cancers other than lymphoma, radiation therapy will result in remission times ranging from 9 – 15 months, with an average of 12 months. Dogs and cats with significant extension into the brain have a poorer prognosis, with average survival times of only 4-6 months, even with radiation therapy.

Lymphoma of the nasal cavity responds very well to radiation therapy. Response is often complete and may be permanent. Survival times in patients with nasal lymphoma following radiation therapy are often 2 years or longer. Some patients with nasal lymphoma, however, may develop systemic lymphoma months to years after radiation treatment.