Canine Oral Malignant Melanoma

What is oral malignant melanoma?

Oral malignant melanoma (OMM) is the most common oral tumor in dogs. It is locally aggressive and readily invades into normal tissue and bone. It also has a moderate potential to spread to other parts of the body, such as local lymph nodes and lungs.

What are the clinical signs of an oral melanoma, and how is it diagnosed?

Dogs with oral tumors will often have difficulty eating and/or drinking. You may also notice blood in the water bowl or coming from the mouth. Dogs may chew on one side to avoid chewing on the side of a tumor, or their appetite may be decreased. A biopsy is necessary to diagnose an oral malignant melanoma.

What other tests are necessary prior to discussing treatment of an oral melanoma?

Chest x-rays and mandibular lymph node samples (the lymph nodes under the chin) are recommended prior to any treatment to determine if spread of the cancer is already present. We may also recommend an abdominal ultrasound to ensure no other conditions are present that might preclude surgery or other definitive therapies. If surgery is elected, a CT scan of the head will be required for surgical planning.

What is the treatment of oral malignant melanoma?

Treatment of OMM is aimed both at controlling the tumor locally (in the site where it originates), and delaying the onset of disease spread. The treatment of choice for a locally invasive tumor is complete surgical removal, or if this is not possible, then surgery combined with radiation therapy (see below).

Surgery for OMM often requires removal of a portion of the jaw. There are potential complications, but most dogs tolerate this procedure well and can still eat and drink normally. If surgery does not result in complete removal of the mass, radiation therapy may be recommended. Radiation therapy is delivered over a period of days to weeks and requires anesthesia for each dose. Side effects associated with radiation therapy include inflammation/ulceration of the lips, gums and tongue, and irritation of the skin overlying the radiation site. These side effects typically start in the second to third week of treatment and can continue for 2-3 weeks following completion of therapy. Supportive medications (pain relief, anti-inflammatories, mouth washes, etc.) would be initiated as indicated to help alleviate the side effects. In some cases, if the oral side effects are significant and affect the willingness/ability of a pet to eat, placement of a feeding tube would be considered to provide nutritional support until the radiation side effects subside/heal.

Due to the likelihood that this cancer will spread to other parts of the body, chemotherapy treatment is recommended in addition to surgery and/or radiation therapy. The drug we routinely use is called carboplatin and is given as an IV injection once every 3 weeks for a total of 4-6 treatments. The first treatment would be administered either 2-3 weeks following surgery or at the time of the first radiation treatment.

In addition, or instead of the chemotherapy described, the melanoma vaccine is available. This vaccine is unusual in that it is used for the treatment of melanoma, not to prevent its development. It is designed to stimulate your dog's immune system to recognize and destroy the melanoma cancer cells. There is less known about the efficacy of the vaccine, however no side effects have been reported aside from mild pain at the injection site. The vaccine could also be used after finishing a course of the chemotherapy. One vaccination is given every 2 weeks for a total of 4 treatments with repeat vaccinations at 6 and 12 months.

What is the outcome with oral malignant melanoma?

Specific disease control times for dogs with OMM treated with surgery or definitive radiation therapy along with chemotherapy and the melanoma vaccine are difficult to define as no one study has looked at these treatments in combination. Based on the data currently available in dogs with OMM, a reasonable expectation for disease control time with the treatments outlined is approximately 8 to 20 months.