Canine Malignant Melanoma

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Malignant melanoma is the most common tumor in the mouth of the dog. Although only about 10% of patients have spread of the cancer to locations other than the mouth at the time of diagnosis, nearly 100% of dogs with this cancer will eventually die from new lesions in the lungs or other organ systems (metastasis). Therefore, the treatment of malignant melanoma must address two issues: eliminate or control the cancer at the original site in the mouth, and prevent metastasis.

Staging

Staging includes a series of tests to determine how far cancer has spread in a patient. Radiographs (x-rays) of the mouth help determine whether the tumor is invading into nearby bone. For some patients, a CT scan or MRI is necessary for more detailed information. Most dogs require anesthesia to allow thorough examination of the mouth and to prevent movement during radiographs or other images of the mouth.

TREATING THE LESION IN THE MOUTH

Surgery is the traditional treatment for melanoma. Surgery may involve removing only soft tissue such as lip, tongue, or gum tissue, but some melanomas can extend into the bone of the jaw or the roof of the mouth. Aggressive surgery removing a segment of bone can be performed with only minor changes in your dog’s appearance, and most dogs are comfortable and begin eating within 24 hours of the surgery.

Radiation therapy involves a series of 4-6 treatments, exposing the bone to a high-energy radiation beam. The beam must be precisely aimed, requiring a short anesthesia for each treatment. Radiation therapy can be performed on tumors that are too large to be removed. Around 60-70% of patients improve following the treatments. The length of improvement can range from a few weeks to several weeks.

PREVENTION OF NEW LESIONS (METASTASIS)

With any local treatment of the cancer, most dogs with malignant melanoma in the mouth eventually develop disease in new areas even when no other disease is found at the time of diagnosis.

Melanoma Vaccine This new therapeutic vaccine is manufactured by Merial®, The technology behind canine melanoma vaccine is very complicated but the results are very simple.
By using the canine melanoma vaccine, DNA trains the immune system to recognize this cancer-associated protein as a threat to the dog’s health.

Using the immune system, in addition to surgery and/or radiation therapy (after removing the initial tumor with surgery and/or radiation therapy), may help to extend the time you have with your dog with melanoma.

**NOTICE:** The USDA has issued a conditional U.S. Veterinary Biological Product License for this therapeutic vaccine. This conditional license is a response to an application and assurance of safety and purity, and a reasonable expectation of efficacy based on initial trials.

During this period of conditional license, additional research will be conducted to further support the safety and efficacy of the vaccine. Production under this license is in compliance with all regulations and standards applicable to such products.

**Chemotherapy** is used to prevent or delay spread of this disease to other parts of the body. The most common drug used is called carboplatin. This drug is given by an injection every 3 weeks. Throughout the treatments, the tumor is monitored for local recurrence and/or spread by examining your pet and taking x-rays of the lungs.

Chemotherapy causes only mild, temporary side effects in most dogs. You may be familiar with the side effects of chemotherapy in people. Fortunately, dogs tend to experience few if any of the severe side effects seen in people. For instance, dogs do not lose hair from chemotherapy, unless they are terriers, poodles, or English sheepdogs.

Chemotherapy is the use of medications to interrupt the growth of cancer cells. The medications which are effective in stopping the growth of melanoma cells will also interrupt the normal replacement of cells which line the digestive tract and the white blood cells which form in the bone marrow to help our bodies fight infection. When chemotherapy drugs damage these normal cells, symptoms can range from a mild, temporary decrease in appetite to loose stools, vomiting, and fever. Again, many dogs have no symptoms; others improve with simple drug store remedies including Pepcid AC®, Pepto Bismo® and, most importantly, changing to a bland diet. Stronger prescription medications and antibiotics are sometimes needed, but only about 1 in 10 patients require a return visit to the hospital because of side effects. **Our philosophy is that patients should feel better, not worse, from their therapy!**

**OTHER MELANOMAS**

Melanomas can begin in other locations besides the mouth. Other common locations include the toes and skin. Treatment options for these locations are similar. These tumors also have a potential to spread to other parts of the body. The digital melanomas (those that arise on the toes) have a 57% metastatic rate; most of the cutaneous melanomas do not metastasize at all.