MALIGNANT MELANOMA
(AND MELANOMA VACCINE INFO)

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, and prevent metastasis.

STAGING

Staging includes a series of tests to determine how far cancer has spread in a patient. Most dogs require anesthesia to allow thorough examination of the mouth and to prevent movement while imaging the mouth. A CT scan may be necessary to determine whether the tumor is invading into nearby bone.

In addition to learning how locally invasive a tumor may be, other areas of the body are examined for metastasis. Small samples of external lymph nodes can be taken with a needle. Radiographs of the chest can detect tumor colonies in the lungs.

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 following the surgery.

Radiation therapy involves a series of 3 to 6 treatments, exposing the tumor site to a high-energy radiation beam. The beam must be precisely aimed, requiring a brief anesthesia for each treatment. Often, a dose of chemotherapy will be used to increase the sensitivity of the cancer cells to radiation. Radiation therapy has been shown to be very effective for incompletely removed melanomas. Radiation therapy can also be performed on tumors that are too large to be surgically removed.
OTHER MELANOMAS

Melanomas can begin in locations other than the mouth. Other common locations include the toes and skin. Treatment options for these locations are similar and usually involve surgical removal of the tumor. These tumors also have a potential to spread to other parts of body. The digital melanomas have a 57% metastatic rate, while most of the cutaneous melanomas in other locations do not metastasize.

PREVENTION OF NEW LESIONS

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.

Immunotherapy: Promising new technology has led to a conditional license for a melanoma vaccine – the first DNA-based vaccine for cancer in animals or humans. This vaccine alerts the immune system to the presence of melanoma proteins, which results in the immune system fighting the cancer cells. In conjunction with surgery and/or radiation to treat the initial tumor, this immune response may help extend the survival time in dogs.

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 as 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.
FAQS ABOUT THE CANINE MELANOMA VACCINE

Since this is a vaccine, does that mean my dog can get it as a preventative? Should my dog receive it every year with other vaccinations? Currently, this vaccine has only been tested as a therapeutic vaccine, for use with dogs that have oral melanoma. Most experts believe that the incidence of canine melanoma is too low to justify preventative melanoma vaccines for all dogs.

How and where is the vaccine administered? Why are four doses of the vaccine necessary? The vaccine is administered into the inner thigh muscle of the dog with a needle-free Canine Transdermal Device. Initial treatment requires administration of four doses of vaccine, one every two weeks. After this initial series, dogs receive one booster vaccine every six months. Each time dogs receive a dose, their immune response becomes stronger in the fight against melanoma.

Is the injection of the vaccine with the device painful for my dog? Based on observations made during administrations, dogs do not react to the vaccine in a way that would suggest the vaccine is any more painful than a traditional injection.

What are the risks and side effects associated with my dog receiving Canine Melanoma Vaccine? A temporary low grade fever may be observed in some dogs. No other clinically significant safety issues were observed in safety studies used to support product licensure.

Will this therapeutic vaccine extend my dog’s life? By how long? Dogs with advanced melanoma (stages II, III and IV) have a reported survival time of less than five months when treated with standard therapies. While the effect of therapeutic vaccines varies from one animal to another, dogs that have participated in vaccine studies have recorded increased survival times, often greatly increased!

What does it mean that this vaccine has a conditional license? This vaccine has met strict safety, purity and potency requirements and provided a reasonable expectation of effectiveness to obtain a conditional license from the USDA. During the period of the conditional license additional research will be done to further support the safety and efficacy of the vaccine.