

Canine Mast Cell Tumors

Oncology Service



Michigan Veterinary Specialistssm

www.michvet.com

We Can Help

Available Services

- 24/7 Emergency & Critical Care
- Cardiology
- Computed Tomography
- Dermatology & Allergy
- Internal Medicine
- Interventional Radiology
- MRI
- Neurology
- Neurosurgery
- Oncology
- Oncologic Surgery
- Ophthalmology
- Orthopedic Surgery
- Radiology & Fluoroscopy
- Radiation Therapy
- Soft Tissue Surgery
- Ultrasound

Locations

Auburn Hills

3412 E. Walton Blvd.
(West of Squirrel Rd.)
(248) 371-3713

Grand Rapids

1425 Michigan St. NE
(East of Fuller Rd.)
(616) 284-5300

Southfield

29080 Inkster Rd.
(North of 12 Mile Rd.)
(248) 354-6660

What are Mast Cell Tumors?

Mast cell tumors are one of the most common types of cancers that occur in dogs. They are a cancer that develops from particular cells of the immune system called mast cells. Mast cells normally treat inflammation and allergic reactions in a pet's body. There is not one single cause of mast cell tumors. Fortunately, the majority of mast cell tumors are localized to one spot, however, some have the ability to spread to other areas of the body and thus may require multi-modality therapy.

Rarely, mast cell tumors can spread to local lymph nodes, the blood, the spleen, the liver, the lungs, the bone marrow or other skin locations and this depends largely on the tumor grade.

Symptoms

Symptoms vary depending on what organ is affected. For most dogs, mast cell tumors are not a painful cancer. In fact, many dogs with mast cell tumors are taken to their veterinarian because the owner feels a lump in or under the skin. Some dogs will have other non-specific signs such as decreased appetite, increased respiratory rate, vomiting, diarrhea or a sluggish activity level if other organs are affected.

Mast cells have inflammatory mediators in them that can cause shock-like signs (severe acute lethargy, collapse, decreased appetite, pale gums and vomiting) and/or stomach ulcers (decreased appetite, vomiting "coffee ground" particles and dark, tarry, stool) if the cells are disturbed and the mediators leak out.

Diagnosis

In most pets a diagnosis can be made with a needle aspiration of the tumor (a procedure performed with the patient awake using the same size of needle used to give a typical vaccine). At Michigan Veterinary Specialists, the Oncology Service can often evaluate a sample and determine a diagnosis at the initial appointment, however, the sample will also be sent to a lab for confirmation or special testing.

A biopsy of the tumor provides the oncologist with more information about your pet's mast cell tumor, such as grade (1, 2 or 3) which sometimes affects prognosis. Additionally, it allows the pathologist to determine the margin of normal cells around the tumor, to help the oncologist determine if all the cells were likely removed or not.

Evaluation of the Body Systems

Clinical staging involves completing a set of diagnostic tests to determine if the mast cell tumor has spread to other parts of the body. These tests can include any of the following: routine blood work, chest x-rays, abdominal ultrasound, fine needle aspiration or biopsy of any enlarged local lymph nodes and bone marrow aspiration.



Canine Mast Cell Tumors Continued...

Treatment

Treatment recommendations and prognosis of mast cell tumors depends of a few important factors, such as tumor grade, tumor location, surgical margins, whether there are other organs affected and tumor cell special staining. Your oncologist will evaluate all these factors and inform you of the best treatment and specific prognosis.

Treatment almost always includes surgical removal of the primary tumor when possible. Radiation therapy is recommended for tumors that have not been completely removed or that cannot be removed based on size or location. Chemotherapy is recommended for grade 3 tumors, if there is evidence of spread, if the tumor cannot be removed or based on special tumor cell staining.

Dogs tolerate radiation therapy much better than people do and the amount given is much lower than in people. This allows the oncologist to reach their goal of maintaining an **excellent quality of life** for each patient throughout their treatment. Radiation therapy is given as a small dose of powerful x-rays, frequently (Monday thru Friday) for 4 weeks.

Potential side effects can include hair-loss, redness and ulceration at the treatment site and dogs do not get systemically ill with radiation therapy like people. If a tumor in the mouth is being treated, hyper-salivation and inflammation of the gums may develop that can affect appetite and energy. These localized side effects typically begin during the final week of treatment or the week following treatment, may progress slightly and take about two weeks to completely resolve.

Dogs tolerate chemotherapy much better than people do as well and the doses given are much lower than in people. This allows the oncologist to reach their goal of maintaining an **excellent quality of life** for each patient throughout their treatment. Combination chemotherapy protocols that utilize more than one drug at a time are the most successful in fighting cancer. There is a new chemotherapeutic called Palladia that is showing great promise in the treatment of canine mast cell tumor. The protocol chosen by the oncologist depends on a number of factors described above. Potential side effects include mild and self-limiting stomach upset (vomiting and diarrhea) and bone marrow suppression (a drop in the white blood cell level) making your pet susceptible to an infection. Most pets feel normal even if they have a low white blood cell level. Occasionally we will recommend antibiotics to prevent an infection from developing.

Cost

The cost of treatment is based on what treatments are recommended. Because of the wide variety of modalities used to treat mast cell tumors, during your evaluation at MVS, the oncologist will have an extensive discussion with you about your pet and what treatments will be most appropriate. You will then be provided with a treatment plan that details the cost associated with each treatment modality.



**Michigan Veterinary
Specialists_{sm}**

www.michvet.com