

Lymphoma (lymphosarcoma) is a cancer of lymphocytes, a type of white blood cell. Lymphocytes are an important part of the immune system. Lymphocytes can be found anywhere in the body, but a large number of these cells are found in the lymph nodes, spleen, and tonsils. Because lymphocytes are found throughout the body, lymphoma can develop in multiple places in the body.

The most common type of lymphoma in dogs is multicentric lymphoma. This means that multiple lymph nodes are affected. The lymph nodes that are easiest to feel on the outside of the dog are the submandibular lymph nodes (underneath the chin), prescapular lymph nodes (in front of the shoulder blades), and popliteal lymph nodes (behind the knees). Other organs (spleen, liver, bone marrow) can also be involved in dogs with multicentric lymphoma. Lymphoma can also develop in the gastrointestinal tract, the kidneys, the skin, the mediastinum (in front of the heart), and “extranodal” tissues (eye, brain, heart).

Some patients are not sick when they are diagnosed, and the lymph nodes are felt by owners. At other times, the dog may have clinical signs (anorexia, vomiting, diarrhea, lethargy, increased thirst and urination, difficulty breathing) and lymphoma is found to be the cause of these clinical signs.

A diagnosis of lymphoma can often be made with a fine needle aspirate. This involves sticking a needle into the affected lymph node or organ. Cancerous cells can be seen in the material obtained from this procedure. A biopsy may be needed at times to obtain a diagnosis.

Once a diagnosis of lymphoma has been made, other diagnostic tests are recommended to determine the extent, or stage, of the cancer. This gives both the owner and clinician a better idea about prognosis (expected remission and survival times) and allows the clinician to monitor the improvement or progression of the cancer more effectively. Staging also allows the other organ systems to be evaluated for concurrent problems (e.g. urinary tract infections), and assesses whether the drugs that are used to treat lymphoma can be safely metabolized.

Staging for lymphoma involves the following; complete blood cell count (CBC), serum chemistry, urinalysis, chest x-rays, abdominal ultrasound, and bone marrow aspirate. After knowing the results of these tests, the stage of cancer can be determined

Dogs who are not sick when they are diagnosed are determined to be a substage A and dogs who are sick are determined to be substage B.

The most effective treatment option to induce a clinical remission (no clinical evidence of cancer) in a patient with lymphoma is to treat with a combination chemotherapeutic protocol. There are many published protocols for the treatment of lymphoma. The current protocol used at WestVet Specialty Center consists of 22 weeks of treatment. Some visits involve treatment with a drug given underneath the skin or into a vein, sometimes the chemotherapy is given by mouth at home, and some visits only blood work is performed. After treatment is completed, typically the staging tests are performed again to look for evidence of cancer before stopping treatment.

With chemotherapy, 70-85% of dogs will go into a complete remission, meaning that no evidence of cancer can be found on the available veterinary tests. Studies have shown that the first remission duration for dogs with lymphoma usually lasts around 8-10 months. Some dogs may come out of remission sooner, and some may stay in remission longer. Once a dog comes out of remission, chemotherapy can be used to try to induce a second remission. However, a lower percentage of dogs will go into a second remission. Average survival times for dogs diagnosed with lymphoma are 10-12 months after diagnosis. Again, some dogs may do worse and some may do better.

Prognostic factors can give more information about how well a dog will do with treatment. Dog with B cell lymphoma typically do better than dogs with T cell lymphoma. Dogs with substage A typically do better than dogs with substage B. Dogs with high calcium levels have a poorer prognosis. Dogs that have a complete response to chemotherapy do better than dogs that have a partial response. Dogs with lower stage cancer typically do better than those with advanced stage cancer.

*We are pleased to provide the services of Carrie Hume, VMD, DACVIM, Idaho's only board certified small animal oncologist. Please contact our office if you have any questions regarding oncology care for your pet.*