

LYMPHOMA IN DOGS

Lymphoma is a relatively common cancer in dogs. It is a cancer of the lymphocytes (a type of blood cell) and lymphoid tissues. Lymphoid tissue is normally present in many places in the body, including lymph nodes, spleen, liver, digestive tract and bone marrow. In most cases, we cannot tell what causes lymphoma.

Types of Lymphoma

Lymphoma can be divided into five different forms, depending upon the primary (predominant) site of the tumour.

External Lymph Nodes: The most common form is involvement of one or more of the external lymph nodes. Many dogs may not feel sick or may have only very mild signs such as tiredness or decreased appetite. Other dogs may have more severe signs such as weight loss, vomiting, diarrhea, excessive thirst or urination, weakness, or difficulty breathing. The severity of the signs depends upon the extent of the tumour and whether the cancer caused changes in organ function. In many cases, the only noticeable sign is an enlargement of the lymph nodes under the neck, behind the knees, or in front of the shoulders. Other organs, such as the liver, spleen and bone marrow can be involved as well.

Mediastinal: The mediastinum is a term used for special collection of lymphoid tissue in the chest. Dogs with this type of Lymphoma often are seen because of difficulty breathing or excessive thirst / urination.

Skin: Lymphoma can also start in the skin. This is known as cutaneous lymphoma. Dogs with Cutaneous lymphoma can have flaky, scaly, reddened skin and can be itchy. They may also have lumps in the skin, which can ulcerate and cause discomfort. The footpads and gums can also be involved. Other organs such as lymph nodes, liver, spleen and bone marrow are variable involved.

Digestive tract: This is another form that involves the gastrointestinal tract. Dogs with this type of Lymphoma may have vomiting, diarrhea, weight loss or decreased appetite.

Bone Marrow: Of the cancer were confined to the bone marrow, we would call this Leukemia. The signs that we see in dogs are usually related to decreased numbers of normal cells; such as red blood cells which carry oxygen, white blood cells that fight infection and platelets that help with clotting which are made in the bone marrow. Anemia, infections and bleeding are common problems.

Diagnosis / Initial Evaluation

A complete evaluation of the dog suspected of having Lymphoma involves obtaining a biopsy or fine needle aspirate of the affected tissues and search for tumour in other locations (this is what we refer to as staging). A complete blood count (CBC), a serum chemistry profile and urinalysis are always performed and provide important information regarding the effects of the cancer on the body functions as well as the ability of the patient to handle

chemotherapy. Chest x-rays allow us to look for enlarged internal lymph nodes, lung involvement or an enlarged mediastinum. Once we have these results, we can then decide upon the best treatment for an individual dog.

Treatment and Prognosis

Chemotherapy is the mainstay of treatment for Lymphoma. Lymphoma is very sensitive to chemotherapy and depending on the treatment protocol used up to 90% of dogs treated will go into remission. Remission is the complete disappearance of all signs of the cancer. Remission is not a cure but does allow your pet to experience a good quality of life. It is important to remember this because chemotherapy should not be discontinued as soon as a remission is achieved. The length of remission depends upon many factors including the primary site, how sick an animal is at the start of the treatment, blood calcium level, and the extent of the disease. For those dogs that have the most common type (external lymph nodes enlarged) treated with the most aggressive treatment protocol, the average survival time is approximately 1 year; approximately 25% of dogs may live longer than 2 years.

There are several different treatment options to consider, depending upon owner preference, how aggressive the cancer is behaving, how sick an animal is at the start of treatment and any abnormalities in organ function; especially important are changes in liver and kidney function.

On a typical schedule, your dog will receive weekly treatments for approximately 4 ½ months. Several different drugs are alternated in order to reduce the chance that the tumour cells will become resistant and to reduce the risk of side effects. Some of the drugs are given as an injection and some are given orally (this can be done at home).

If your dog remains in remission at the end of your full protocol treatment is discontinued and we will recheck them monthly to ensure that remission persists. If and when recurrence of Lymphoma is noted, the same drugs are often effective again, although the duration of remission is often shorter.

There are other treatment protocols that require less frequent hospital visits and/or may be less expensive if finance restrictions are an issue. These may not be quite as effective as our most aggressive treatment, but are certainly better than pursuing no therapy.

Most dogs tolerate their chemotherapy well and have minimal, if any, side effects. Serious side effects are seen in only about 5% of patients treated. These include nausea, vomiting, diarrhea, tiredness, or infection. Hair loss or slow hair growth may also occur in certain circumstances. Adriamycin can cause damage to the heart muscle if given multiple times, although most dogs do not receive enough of this drug to be a concern. Cyclophosphamide can cause irritation to the bladder wall in a small percentage of dogs. If this occurs, you will see changes in urination (i.e. Blood in urine, straining to urinate and frequent urination). Please also see our handout "Chemotherapy in Pets" for further information.