Lymphosarcoma in Cats-Causes, Symptoms & Treatment

About:
Lymphosarcoma (lymphoma) is a cancer of the lymphatic system. It is responsible for almost one-third of all cancers diagnosed in cats. It arises from lymphoid tissue, which is found throughout the body and may involve any organ or tissue.

The lymphatic system is a network of vessels found throughout the body. These vessels transport lymph, a clear fluid containing protein, water, minerals and white blood cells. The role of the lymphatic system is to:

- Filter out bacteria and debris
- Manage fluid levels in the blood
- House white blood cells (also known as lymphocytes)

Cats with feline leukemia virus are 60 times more likely to acquire lymphosarcoma than those without. Cats living in smoking households are twice as likely to acquire lymphosarcoma. [2]

There is no breed or sex predilection. The average age of cats with lymphosarcoma is 3 years for those who are FeLV positive and 7 years for those who are FeLV negative.

Symptoms:
Clinical signs lymphosarcoma vary depending on the organ/tissues involved. Common symptoms include:

- Enlarged lymph nodes
- Loss of appetite (anorexia)
- Weight loss
- Depression
- Lethargy
- Other signs depend on the specific location

Multicentric:
Multicentric lymphoma affects the multiple lymph nodes and organs. Spleen, liver and bone marrow may also be involved.

Symptoms of multicentric lymphoma may include:

- Enlarged lymph nodes
As the disease progresses other symptoms may develop such as:

- Lethargy
- Anorexia
- Fever
- Depression

**Mediastinal:**

Mediastinal (also known as thymic) lymphosarcoma occurs in the thymus, which is located in the chest (between the lungs) and anterior mediastinal lymph nodes. Mediastinal lymphoma can cause fluid to accumulate around the lungs (pleural effusion).

Mediastinal lymphoma is the most commonly found lymphoma in FeLV positive cats and is seen more frequently in younger cats around 2 to 3 years of age.

Symptoms of mediastinal lymphoma may include:

- Difficulty breathing
- Coughing

**Alimentary:**

Alimentary lymphosarcoma occurs in the stomach, intestines, liver, and spleen. It is the most common form of lymphoma. [1] The average age for alimentary lymphoma is 8 to 9 years.

Symptoms of alimentary lymphosarcoma may include:

- Vomiting
- Diarrhea or constipation
- Weight loss
- Loss of appetite
- Fever
- Loss of coat condition
- A palpable abdominal mass may be present or a thickening of the intestine.

**Extranodal/miscellaneous:**

Extranodal lymphoma or miscellaneous lymphoma occurs most commonly in the kidneys, eyes, nasal cavity, CNS, skin or heart.

**Diagnosis:**

Your veterinarian will perform a complete physical examination and obtain a medical history from you.

Tests your veterinarian may perform include:

- Complete blood count. Anemia and circulating lymphoblasts (immature cells
normally found in the bone marrow, but may be found in the blood in cats with lymphosarcoma) may also be found.

- **Biochemical profile** and **urinalysis** can reveal the overall health of your cat. These tests may also reveal abnormalities in affected organs such as abnormal kidney function, elevated liver enzymes, hypercalcemia.

- **FeLV and FIV test.**
- **X-ray or ultrasound** may reveal abnormalities such as thickening of the intestines, abdominal masses or enlarged organs.
- **Fine needle aspiration/cytology** or **biopsy/histopathology** of tissue samples is necessary to confirm the presence of lymphosarcoma.
- **Bone marrow aspirate/cytology** is necessary to confirm a diagnosis of bone marrow lymphosarcoma and document bone marrow involvement with other forms of lymphosarcoma.

Once a diagnosis of lymphosarcoma has been made, clinical staging will be necessary to determine the extent of tumour involvement.

1. **Stage I:** Single lymph node involvement only.
2. **Stage II:** Several lymph nodes involved within a regional area.
3. **Stage III:** Generalised lymph node involvement.
4. **Stage IV:** Involvement of the liver and or spleen.
5. **Stage V:** Any of the above with bone/bone marrow involvement or other organs (skin, gastrointestinal, kidneys etc.)

**Treatment:**

In a few cases, if a tumour is limited and easy to access, surgical removal may be possible.

The mainstay of treatment for lymphosarcoma in cats is chemotherapy, a combination of drugs will be used. Chemotherapy is well tolerated by cats although they may experience a few side effects such as anorexia or lethargy. Lymphosarcomas tend to respond well to chemotherapy but this treatment is not curative, it can, however, give your cat some extra time.

Supportive care such as fluids to correct dehydration.

**Prognosis:**

The prognosis varies depending on several factors such as the location and extent of the tumours and the FeLV status of the cat, response to chemotherapy, stage of the disease.

**References:**


[2] Science Daily