

## TUMORS OF LYMPHATICS

These notes are provided to help you understand the diagnosis or possible diagnosis of cancer in your pet. For general information on cancer in pets ask for our handout "What is Cancer". Your veterinarian may suggest certain tests to help confirm or eliminate diagnosis, and to help assess treatment options and likely outcomes. Because individual situations and responses vary, and because cancers often behave unpredictably, science can only give us a guide. However, information and understanding for tumors in animals is improving all the time.

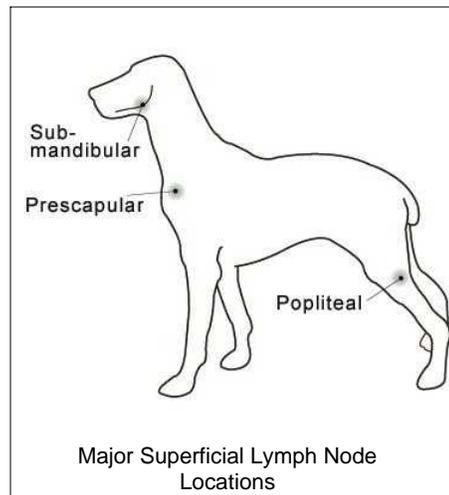
We understand that this can be a very worrying time. We apologize for the need to use some technical language. If you have any questions please do not hesitate to ask us.

### ***What is this tumor?***

This is a tumor of the lymphatic vessels of the skin or subcutaneous tissue.

Lymphatic vessels are a network of capillaries, ducts and larger vessels that drain lymph (a fluid containing proteins, other chemicals and lymphoid cells (lymphocytes) from body tissues). The channels pass through a series of filtering lymph nodes (glands) and eventually into the bloodstream.

Some lymphatic tumors are benign (**lymphangioma**) and some malignant (**lymphangiosarcoma**). Both types are soft, poorly defined masses which may exude serous fluid. They are difficult to excise surgically because the borders are so poorly defined but spread to other parts of the body (metastasis) is rare.



### ***What do we know about the cause?***

The reason why a particular pet may develop this, or any cancer, is not straightforward. Cancer is often seemingly the culmination of a series of circumstances that come together for the unfortunate individual.

Little is known about the cause of these tumors but some benign ones may be congenital malformations (**hamartomas**).

### ***Is this a common tumor?***

Lymphangiomas are rare in dogs and cats. They are usually found in dogs less than eight years of age. Malignant tumors are even more rare.

### ***How will this cancer affect my pet?***

These tumors are usually under the skin along the ventral midline of the abdomen and limbs. Lymphangiomas are fluctuating swellings that may become as large as 7 inches diameter. Edema (local water retention) is the main clinical feature of both benign and malignant tumors. Clear blisters, oozing fluid and ulceration are common signs of malignant tumors.

In cats, distinction of lymphatic tumors from tumors of blood vessels (arteries and veins) is not always clear. Most are on the caudal (rear) abdominal wall but a few are intra-abdominal or internal chest masses.

### ***How is this cancer diagnosed?***

Clinically, the tumors are poorly demarcated, soft swellings that may ooze clear fluid. They can be confused with inflammatory reactions.



In order to identify the tumor, it is necessary to obtain a sample of the tumor itself. Needle aspiration for microscopic examination of the cell sample (cytology) is not diagnostic. Histopathology, the microscopic examination of specially prepared and stained tissue sections, is necessary. This is done at a specialized laboratory where the slides are examined by a veterinary pathologist. Distinction of benign and malignant tumors is difficult even on microscopic examination. Examination of the whole lump is preferable to a small part (biopsy) as this will allow the adequacy of excision to be assessed.

### ***What treatment is available?***

Treatment is surgical removal. This may need to be extensive because of the spreading nature of the tumors. For malignant tumors, radical surgery or limb amputation has sometimes been curative.

### ***Can this cancer disappear without treatment?***

Cancer rarely disappears without treatment but as development is a multi-step process, it may stop at some stages. The body's own immune system can kill some cancer cells but is not effective against this type.

### ***How can I nurse my pet?***

Preventing your pet from rubbing, scratching, licking or biting the tumor will reduce inflammation. Any ulcerated area needs to be kept clean.

After surgery, the operation site similarly needs to be kept clean and your pet should not be allowed to interfere with the site. Any loss of sutures or significant swelling or bleeding should be reported to your veterinarian. If you require additional advice on post-surgical care, please ask.

### ***How / When will I know if the cancer is permanently cured?***

'Cured' has to be a guarded term in dealing with any cancer.

Histopathology will give your veterinarian the diagnosis that helps to indicate how it is likely to behave. The veterinary pathologist usually adds a prognosis that describes the probability of local recurrence or metastasis (distant spread).

These tumors are difficult to cure surgically and multiple recurrences are common, even for benign tumors. They may grow very large. Cure of malignant tumors is difficult. Distant spread to internal organs (metastasis) is occasionally reported.

All cats followed up in one series had to be euthanized within six months because of poor wound healing, local recurrence or metastasis.

### ***Are there any risks to my family or other pets?***

No, these are not infectious tumors and are not transmitted from pet to pet or from pet to people.