FELINE FIBROSARCOMA AND SARCOID

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?

Fibrosarcoma is a tumor originating from the fibroblasts of the skin and subcutaneous connective tissue. The tumors vary in growth rate. They often recur locally although spread to other parts of the body (metastasis) is rare. The feline sarcoi... is a subtype of tumor that is caused by a papilloma (wart) virus.

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.

Feline sarcoma retroviruses (recombinant forms of feline leukemia virus - FeLV) may initiate fibrosarcoma development in young cats and where there are multiple tumors in cats of more than five years of age. The virus disrupts the genome and causes chromosomal changes. Most older cats have immunity to the virus so, in older cats, solitary sarcomas are not usually FeLV-virus associated.

There is currently controversy about the cause of tumors arising in the shoulder and neck area. Some of these may be due to previous tissue damage. Tumors apparently at vaccination sites and more particularly where rabies vaccine and certain adjuvants (substances in the vaccines to increase their potency) had been given, started to appear in occasional cats in the USA in the 1990's. No viruses have been found in these tumors and one suggestion has been that the adjuvant might be acting as the carcinogen in certain susceptible cats. The tumors have different and specific pathology in the international classification. In Europe, GREFFI (Groupe d’Etudes des Fibrosarcomes Felins) was founded because of the controversy on the possibility of vaccine-associated tumors. This group has found that, in France at least, the peak age for tumors is now younger than previously with a bimodal distribution with peaks at 6-7 and 10-11 years. In the UK, the Veterinary Medicines Directorate collects reports on adverse reactions to vaccines but their data has not confirmed any definite vaccine link for fibrosarcomas. It is suggested that in individual cats factors other than injection may be prerequisites for fibrosarcoma formation.

The feline sarcoi (fibropapilloma) is due to a papilloma virus infection.

Is this a common tumor?
Fibrosarcoma is the most common malignant soft tissue cancer in the cat. There is genetic heterogeneity of fibrosarcoma cells so there is also variable tumor behavior. Many grow rapidly. Predilection sites used to be the shoulder, ears and feet. Almost 50% are now between the shoulder blades or on the back of the neck with 25% on the chest and flanks. Lower leg and foot tumors are now rare. The incidence of possible vaccine-related tumors in the USA is very low and currently not increasing.

Solitary skin sarcoi...
As older cats tend to be immune and resist viral tumor development, regression of virally induced sarcoids can occur.

**How can I nurse my pet?**
Preventing your pet from rubbing, scratching, licking or biting the tumor will reduce itching, inflammation, ulceration, infection and bleeding. 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).

The prognosis of fibrosarcomas depends on the location (for ease and margin of excision), duration of the tumor and grade as determined by frequency of cell divisions (mitotic index). Tumor associated deaths (two-thirds in three years) are due to primary site recurrence (more than two-thirds) with approximately ten to fifteen percent metastasizing. Tumors in very young cats (approximately one year of age) tend to be more malignant.

Feline sarcoids are usually on the nose or face. Surgical removal usually cures them but recently local recurrence has been reported.

**Are there any risks to my family or other pets?**
No, although some of these tumors have a viral origin, they are not transmissible from pet to pet or to people by contact or through body fluids.