Fibrosarcoma in Cats – Causes, Symptoms and Treatment

What is a fibrosarcoma? A fibrosarcoma (FSA) is an aggressive type of malignant growth (cancer) that consists of fibroblasts. It originates in the fibrous connective tissue and is the most common soft tissue tumour to affect cats.

There are three causes of fibrosarcoma.

1. **Age:** Fibrosarcomas are common in older cats. The cause has not been established, although cancers more common in older cats. This is usually a single, irregularly shaped mass found on the trunk, legs, and ears.

2. **Vaccinations:** The use of vaccines is known to cause fibrosarcoma (vaccine induced sarcoma or vaccinosarcoma). Most commonly due to rabies and Feline Leukemia vaccines. The protocol for vaccinations now is to give the rabies vaccine in the rear right leg and the feline leukemia vaccine in the rear left leg, so if a fibrosarcoma does develop, the affected limb can be amputated. The prevalence of VAS is 1:1000 – 1:10 000 for FeLV and rabies. These types of fibrosarcomas are commonly more aggressive. The cause of VAS is believed to be the adjuvant within the vaccination, this is a substance (usually aluminum) which keeps the killed virus in the localised area for a period of time in order to give the body the chance to stimulate an immune response. This can result in localised inflammation, and possibly the formation of a fibrosarcoma.

3. **Feline Leukemia Virus:** A mutant form of FeLV (feline sarcoma virus) also causes fibrosarcoma. This is occurs in younger cats as multiple tumour masses. Cats under four are usually affected.
Fibrosarcomas are rare to metastasize but often grow quite fast, they can be locally aggressive, infiltrating muscles and fascia (a thin tissue which encloses muscles and other organs).

Symptoms:

Fibrosarcomas are most commonly located on the trunk, neck, legs, ears and oral cavity. Symptoms can vary depending on the location of the tumour but may include:

- Localised soft tissue swelling. This may be firm, poorly circumscribed (irregular) and measure between 1-15cm. Ulceration may develop in advanced cases.
- Cats with oral fibrosarcomas may have difficulty eating and swallowing, bad breath and drool. Lumps may or may not be painful.
- Fibrosarcomas of the limbs may cause limping, swelling and tenderness.

As cancer progresses, other symptoms such as anorexia (loss of appetite), weight loss and lethargy may occur.

Diagnosis:

Your veterinarian will perform a complete physical examination and obtain a history from you. Some tests he may wish to perform include:

- Routine screening such as complete blood count, biochemical profile, and urinalysis. To rule out other possible diseases. Typically these tests reveal no abnormalities, although in some cats can have reduced lymphocyte numbers.
- X-rays of the area in which the lump is located which may reveal a large, soft tissue mass.
- X-ray or CT of the lungs to determine if the cancer has metastasized (spread).
- Biopsy or fine needle aspiration of the lump will provide a definite diagnosis of fibrosarcoma.
- Your veterinarian may also perform a FeLV test to determine if the fibrosarcoma has arisen due to feline sarcoma virus.

Treatment:

The prognosis for fibrosarcoma depends on the location of the tumour as well as how far it has progressed. These tumours can be tricky because they send out almost invisible tentacles, which can be impossible to see. Any cells left behind can cause a recurrence of the growth. Unfortunately, this is quite common. Your veterinarian will most likely refer you to a veterinary oncologist, who specialises in the treatment of cancer in animals.

- Surgical excision of the lump with a wide margin or amputation of the affected limb.
- Radiation therapy to follow on to destroy any remaining cancer cells. This usually commences within two weeks post surgery.
- Chemotherapy is sometimes given to your cat before surgery to shrink the tumour. It may resume after surgery to kill off any remaining cancer cells. Unlike in humans, chemotherapy doesn't cause your cat to lose his hair. In my experience with having a
cat undergo chemotherapy, it would knock her about for a day or two, and she would be quite lethargic, but would quickly bounce back.

Where a combination of surgery, radiation therapy, and/or chemotherapy have occurred, the median survival rate is between 2-3 years.

Prevention:

- Over recent years, vaccine protocols have changed. Many veterinarians don’t recommend the FeLV unless your cat is a high risk.
- In some states and countries, the rabies vaccine is mandatory. Check with your veterinarian or local authority to see if this is the case.
- If your cat does receive rabies and/or FeLV vaccinations, make sure your veterinarian follows protocol and administers them in the hind legs.
- Low-risk cats only need routine vaccinations every three years. Again, speak to your own veterinarian about this as your own personal circumstances may necessitate more frequent vaccinations.
- Keep a close eye on your cat after a vaccination. In some cases, a small lump will appear after a vaccination, this is normal and the result of the formation of a granuloma. However, any post-vaccination lump warrents close monitoring. If it has not resolved within two weeks, see a veterinarian. In the meantime, apply a warm compress to the area.