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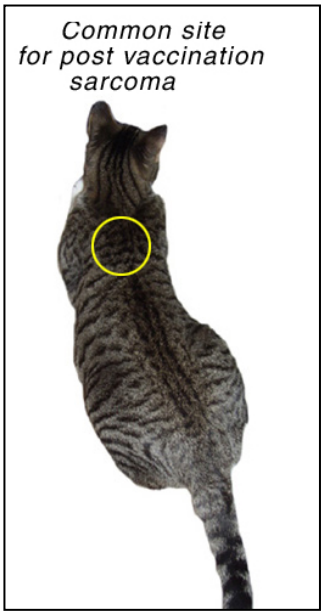
Post-Vaccination Sarcoma

What is a sarcoma?

A *sarcoma* is a term for any cancer of mesenchymal tissues. Mesenchymal tissues include connective tissues such as skin and muscles, bone, cartilage, pleura, peritoneum, and blood vessels. Post-vaccination sarcomas usually involve the fibrous connective tissue under the skin and are often *fibrosarcomas*.

Why are they called "Post-Vaccination"?

Sarcomas affecting various body tissues have always been seen in cats, but in recent years the occurrence of sarcomas at sites commonly used for vaccination, such as the shoulder, lumbar region, flank and upper hind leg, led researchers to see if there was a direct association with vaccination.



Is there an association with vaccination?

The evidence is still not clear but in a few genetically susceptible cats it seems that some component of vaccines may trigger a prolonged intense inflammatory reaction that can eventually become a sarcoma. There is a considerable amount of research being conducted to determine what, if any, role the vaccine plays in the development of sarcomas. The association is still controversial and the most recent research continues to question the exact mechanism of action for these tumors.

How common is the condition?

In relation to the numbers of cats vaccinated the incidence of sarcomas is extremely small. While the exact incidence is unknown, it may be somewhere between one-in-a-hundred thousand to well over one-in-a-million. The likelihood that sarcomas are caused by something other than a vaccine or is the culmination of multiple factors is still thought to be the most likely explanation.

How can it be recognized?

These sarcomas are usually seen as single, firm lumps under the skin commonly over the flank or shoulder blade. Few develop sooner than three months after a vaccination. Any lumps that develop sooner are more likely part of a transient local response to the vaccine, and these have usually resolved by three months.

How are sarcomas diagnosed?

A biopsy of the lump and *histopathology* or microscopic examination of the abnormal tissue will confirm that it is a sarcoma rather than simple inflammation or infection.

What is the treatment?

The tumor tissue must be surgically removed. A generous amount of tissue around the margins of the tumor must be removed to reduce likelihood of recurrence. Depending on the size and position of the tumor, amputation of a limb or other tissues may be necessary.

Is treatment successful?

These sarcomas do tend to recur at the original site. *Metastasis* or spread to other sites occurs less frequently. The use of radical surgery, combined in some cases with radiation or chemotherapy, increases survival time.

In view of these sarcomas is it safe to vaccinate my cat?

Your veterinarian will discuss all aspects of the risks and benefits of vaccination with you. In general, the risk of your cat becoming infected with a serious disease is far greater than the very small risk of developing a sarcoma.

This client information sheet is based on material written by Ernest Ward, DVM
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