



Metastatic vaccine associated fibrosarcoma in a 10-year-old cat

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On June 24, 1995, a 10-year-old, female, spayed domestic medium-haired cat was admitted with the presenting complaint of a rapidly growing, firm, subcutaneous mass (1 cm × 1 cm × 1/2 cm) on the right flank. The mass was surgically removed under general anesthesia; histological examination confirmed a tentative diagnosis of a vaccine-associated subcutaneous fibrosarcoma. Surgical margins were free of neoplastic cells at this time. The owner did not want to pursue any other treatment options, such as radiation or chemotherapy.

On October 11, 1995, a 2nd surgery was performed to excise a recurrent mass at the original site of tumor growth. Histological examination revealed a reoccurrence of the fibrosarcoma, although wide surgical margins had been obtained during the 1st surgery. On July 22, 1996, a 3rd surgery was performed to remove further regrowth at the original tumor site. For philosophical reasons, the owner still did not want to pursue other treatment modalities.

On November 12, 1996, the cat was admitted with a sudden onset of depression and inappetence. Physical examination revealed moderate regrowth of the fibrosarcoma at the same site. The only other abnormality noted was that the cat was pyrexia with a temperature of 40°C. A clinical chemistry profile, complete blood cell count, and thyroxine (T4) concentration were all within normal reference ranges. The cat's feline leukemia virus and feline immunodeficiency virus statuses were negative. A urinalysis was unremarkable.

The cat was started on enrofloxacin (Baytril, Bayer, Etobicoke, Ontario), 2.5 mg/kg body weight (BW), PO, q12h for 14 d, and discharged from the hospital. The cat returned 2 d later with little change noted by the owner. While resting in the cage, the cat vomited a *Toxocara canis* worm and was dewormed with pyrantel pamoate (PYR-A-PAM, rogar/STB, London, Ontario), 20 mg/kg BW. Abdominal radiography revealed mild hepatomegaly and a possible mid-abdominal mass.

Over the next 24 h, the cat continued to deteriorate and became icteric. The owner elected for an ultrasound-guided biopsy of the liver. Two hours after the biopsy, the cat became severely dyspneic and died. The owner did not allow a postmortem examination, but the biopsy was submitted for histological examination. The biopsy reveal an anaplastic sarcoma, metastatic to the liver and surrounding omentum.

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The prevalence of vaccine-associated sarcomas is fairly low in the cat population. Estimated range from 1 in 10 000 to 1 in 1000 (1). Current research has indicated that there may be a causal relationship between vaccination and sarcoma tumor genesis (2). This is an interesting case, because it is an example of an intra-abdominal fibrosarcoma, metastatic from a primary vaccine-associated tumor.

References

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2. Hendrick MJ, Shofer FS, Goldschmidt MH, *et al.* Comparison of fibrosarcomas that developed at vaccination sites and at non-vaccination sites in cats: 239 cases (1991-1992). J Am Vet Med Assoc 1994; 205: 1425-1429.

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