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**Title**

Fibrosarcoma of the nictitating membrane in a cat

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## Discussion

The aneurysmal bone cyst, when occurring in a long bone, appears radiographically as an irregular, eccentric, expansile lesion of the metaphysis and adjacent diaphysis.<sup>1,3,7</sup>

Differential diagnosis for both the radiologist and pathologist often includes fibrosarcoma, osteolytic osteosarcoma, osteoblastic or giant cell tumor, and the unilocular membrane-lined simple bone cyst.<sup>1,11</sup> Aneurysmal bone cysts usually have a sharper junction between normal and abnormal bone than do fibrosarcomas and osteolytic osteosarcomas. Giant cell tumors usually extend to the subchondral area of the epiphysis. Simple bone cysts usually differ by being unilocular, painless, and by having bloodless contents unless a fracture has occurred.<sup>1</sup> A definitive diagnosis of aneurysmal bone cyst depends on radiography and sufficient tissue for biopsy.

Treatment with curettage is usually sufficient for cure, although extensive hemorrhage may occur during this procedure.<sup>7,11</sup> Malignant transformation has been reported in patients that underwent radiotherapy with less than 1,000 R.<sup>7</sup>

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*cat, neoplasia, nictitating membrane, fibrosarcoma*

# CLINICAL ITEMS



## Fibrosarcoma of the Nictitating Membrane in a Cat

A 15-YEAR-OLD, castrated male domestic shorthair cat was examined because of an ocular problem of 2 months' duration. The initial abnormalities included blepharospasm of the left eyelids and a purulent discharge from the left eye. The conditions had not improved when treated topically with antibiotic and corticosteroids. Instead, an enlarging mass was observed at the left medial canthal area.

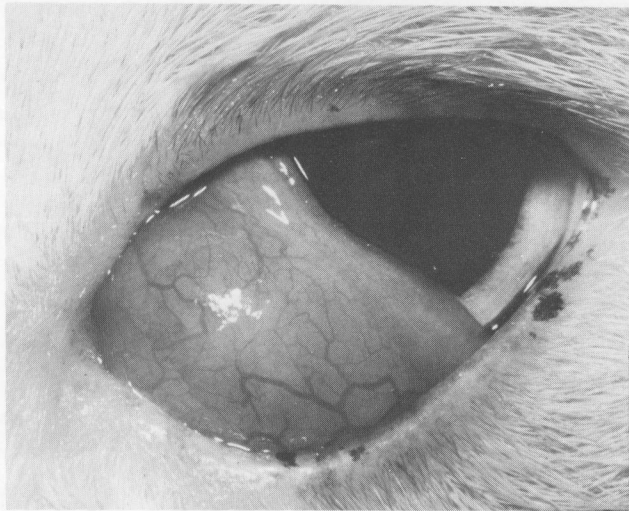
The anterior surface of the left nictitating membrane was enlarged and protruded from the medial canthus (Fig 1). Palpation revealed thickening of the entire membrane, narrowing to normal at its base. The posterior surface of the membrane was smooth; the anterior surface appeared intact, although there was some congestion of the mucosal vessels. The membrane could not be replaced to its normal position. The right eye had corneal and retinal scars, indicating previous inflammation. A general physical examination did not reveal any other abnormalities.

The affected membrane was removed surgically and placed in buffered 10% formalin. Microscopic examination of hematoxylin and eosin stained sections showed the mass to be composed of spindle cells arranged in long bundles that formed "herring-bone" patterns (Fig 2). The histologic appearance was compatible with fibrosarcoma. The neoplasm did not extend to the cut edge of the tissue.

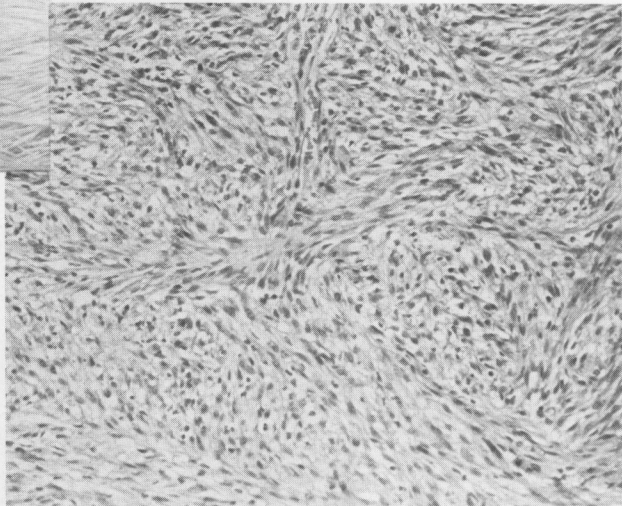
Inasmuch as feline leukemia virus (FeLV) may be associated with fibrosarcomas,<sup>1</sup> blood was taken for FeLV testing,<sup>a</sup> but results proved negative. Thoracic radiography revealed localized pleural effusion and mediastinal enlargement, with a normal heart shadow. These radiographic

<sup>a</sup> Dr. W. D. Hardy, Jr., National Veterinary Laboratories, Franklin Lakes, NJ.

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◀  
Fig 1—Photograph of left eye of cat with fibrosarcoma of membrana nictitans.



▶  
Fig 2—Photomicrograph of representative area of fibrosarcoma of membrana nictitans. Notice spindle-shaped cells arranged in "herringbone" pattern. H&E stain; × 50.

signs were considered compatible with malignancy, possibly metastatic in origin.

Reexamination of the cat 2 months after surgery revealed some ocular irritation, which was not surprising in light of the surgery that had been done. The cat was in good condition but did suffer occasionally from coughing spells.

Although primary neoplasms of the membrana nictitans in species other than cats have been mentioned, a search of the literature failed to reveal reports of such neoplasms in cats. Neither were there any feline cases seen during a 10-year period (1964–1974) at this hospital. Secondary involvement of the membrana nictitans occurs by local invasion by such malignancies as squamous cell carcinoma.<sup>2,3</sup>—*Ned Buyukmihci, VMD, Philadelphia, Pa 19104.* Dr. Buyukmihci's present address is 333 Cedar St, New Haven, Ct 06510.

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cat, oc man, retina, dysplasia

## Retinal Dysplasia due to Feline Panleukopenia Virus Infection

THERE are 2 distinct patterns of disease in cats infected with feline panleukopenia virus (FPV)—the usual form, which is characterized by involvement of the alimentary tract and hematopoietic system,<sup>3</sup> and the disease that occurs in kittens infected during the perinatal period, resulting in cerebellar hypoplasia and focal renal cortical dysplasia.<sup>1</sup> The purpose of this report is to describe ocular lesions in a kitten that were attributed to FPV infection.

A stray kitten, judged to be approximately 6 weeks old, was presented