Lymphocytic Leukemia in a Ferret (*Mustela furo*)

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Vet Pathol 1984 21: 361
DOI: 10.1177/030098588402100317

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Vet. Pathol. *21:* 361–362 (1984)

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Tumors appear to be relatively rare in the ferret (*Mustela furo*).[1–6] Single cases of a squamous cell carcinoma,[6] mammary cystadenocarcinoma,[2] an ovarian carcinoma,[4] and recently a megakaryocytic myelosis[3] have been reported. Lym-

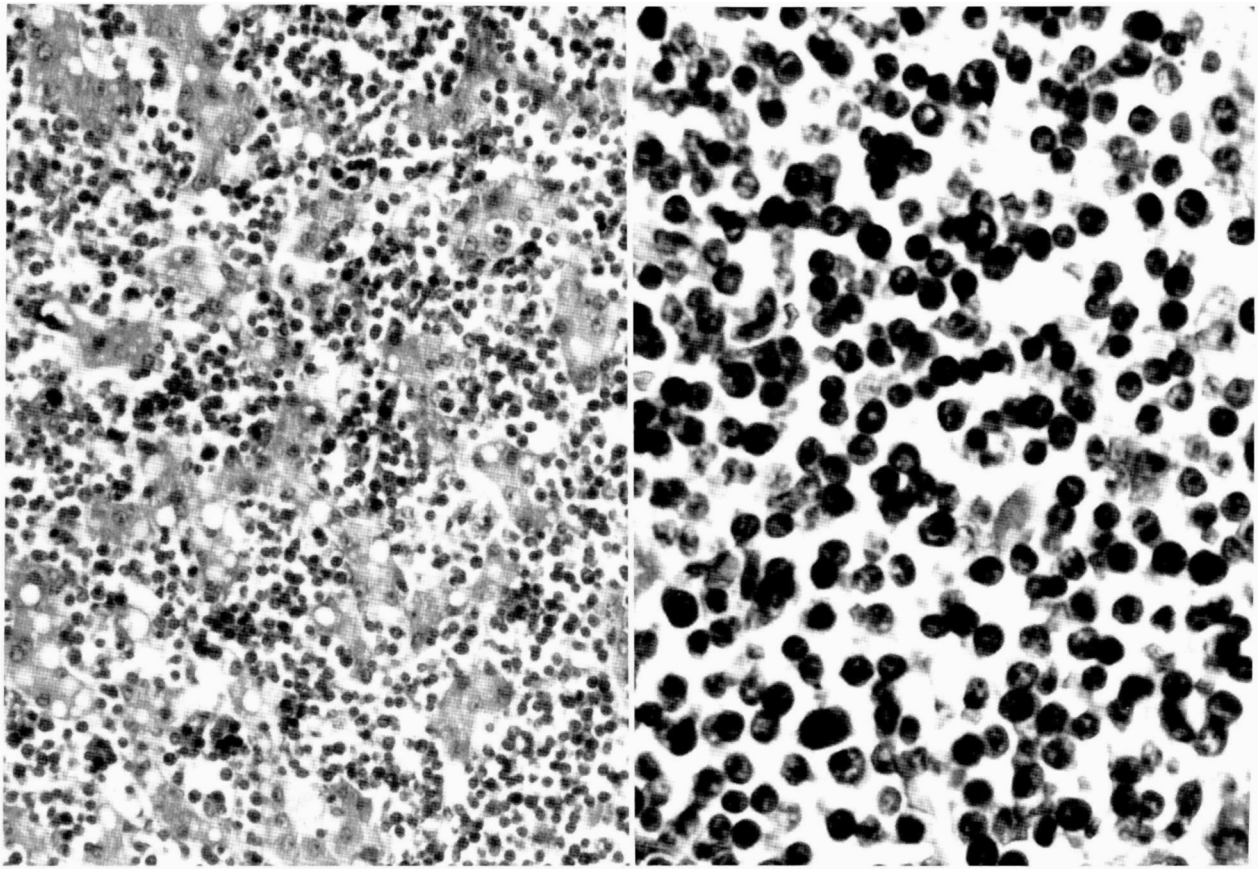

Fig. 1: Neoplastic lymphocytes massively infiltrating hepatic sinusoids and causing atrophy of hepatic cords. HE.
Fig. 2: Neoplastic lymphocytes in hepatic sinusoid. Round nuclei with clumped chromatin, prominent nucleoli, and scanty cytoplasm. HE.

phoid tumors are relatively common neoplasms in most domestic animals.[5] Those classified as lymphosarcoma are much more frequent than lymphocytic leukemias. This is the first reported case of lymphocytic leukemia in the ferret.

A one-year-old male ferret was housed in an outdoor wire mesh enclosure with a female ferret. The ferrets had been in good health until the male was found dead unexpectedly one morning. On gross examination, the mesenteric lymph nodes, anterior thoracic lymph nodes, and spleen were enlarged. The liver was swollen and pale.

Histological examination revealed a marked leukemic infiltration in all organs examined. The tumor cells were pleomorphic round cells with round or indented nuclei containing clumped chromatin and one or more prominent nucleoli. Cytoplasm was scant, and mitotic figures were rare. The architecture of the lymph nodes was effaced and the leukemic cells had invaded the capsule and perinodal fat. The hepatic sinusoids were flooded with tumor cells resulting in extensive atrophy of the hepatic cords. (figs. 1, 2) A diagnosis of a well-differentiated lymphocytic leukemia was made.

Serum from this ferret was not available, however, the female ferret housed in the same cage was bled and found to be FeLV negative.

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Vet. Pathol. *21:* 362–364 (1984)

Basophilic Enterocolitis in a Horse

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Chronic enteric disease in the horse has been associated with granulomatous[2] and eosinophilic[5] inflammation of the small and large intestine. A chronic basophilic enteritis involving the ileum, cecum, and colon of a horse is described in the present report.

A nine-year-old thoroughbred gelding which had been losing weight for five weeks despite a normal appetite was admitted to Murdoch University Veterinary Hospital for evaluation. On presentation, the horse weighed 410 kg, was afebrile, had ventral abdominal edema, and was passing unformed, foul-smelling feces. The horse was hypoproteinemic (40 g/l) and hypoalbuminemic (14 g/l). The remarkable hematological findings during the period of hospitalization were a mild leukocytosis and neutrophilia, and a basophil count that consistently ranged from 580 to 1168/μl. The basophil count in the marrow was increased to 6.2% (normal 0–1.5%)[4] with 3.8% eosinophils. Serum folate and vitamin B_{12} values were within our range and the reported range for normal horses.[6] The results of an oral glucose tolerance test[7] were equivocal but suggested that the horse had mild malabsorption.[3]

The horse was discharged with a diagnosis of chronic enteritis. The horse continued to lose weight despite symptomatic therapy. Four weeks later, the horse was presented again with a watery diarrhea and was destroyed at the owner's request.

At necropsy, lesions were confined to the gastrointestinal tract. Submucosal edema was prominent throughout the small intestine, cecum, and large colon. The mucosa of the small intestine was normal but patchy lesions of two types were present in the cecal and colonic mucosa. In some areas, the mucosa was hyperemic and covered by a yellow fibrinous exudate. In other areas, there was mucosal erosion with apparent underlying scarification of the submucosa, produc-