Aleutian Disease in Ferrets

Aleutian disease (AD) of ferrets is a chronic wasting disorder characterized by weakness, posterior paresis, and progressive weight loss. This case report describes the clinical course of a 9-month-old ferret with spontaneous AD. The castrated male ferret initially presented for anorexia, progressive weight loss, weakness, and renomegaly. On examination, he was emaciated and had posterior paresis. Blood analysis revealed increased total protein (11.5 g/dl) with normal albumin (2.8 g/dl) and increased BUN (63.7 mg/dl). Beta- and gamma-globulin fractions were increased (65.7%) on serum protein electrophoresis. An ELISA test for AD virus (ADV) antibody was negative. Proteinuria and hematuria were noted on urinalysis, and urine specific gravity was 1.013. Renomegaly and splenomegaly were seen on abdominal radiography and ultrasonography. Treatment with oral prednisolone (1 mg/kg Q 24 H), oral cephalexin (20 mg/kg Q 12 H), and subcutaneous fluids was instituted and continued for 2 weeks with only slight improvement. At that time, repeated blood analysis showed that total protein remained high (12 g/dl), serum albumin was low (1.8 g/dl), and hypergammaglobulinemia was observed. Repeated ELISA was positive for ADV antibody. A presumptive diagnosis of AD was made. Supportive treatment continued as before except prednisolone was increased to 2 mg/kg PO Q 24 H. However, the ferret continued to deteriorate and died 80 days after the first admission. Necropsy and histopathologic evaluation revealed lymphocytic/plasmacytic inflammation of several organs and PCR confirmed the presence of ADV.

COMMENTARY: According to reports, the prevalence of positive ADV antibody titers in ferrets is 8.5% to 60%. Latent infection with ADV has been reported, and this case illustrates the importance of repeated testing when AD is suspected. While immune-complex formation within multiple organs leads to death in these patients, studies have shown that some infected ferrets remain asymptomatic. Why this occurs is unclear, although it may be that different AD strains (eg, mink ADV or ferret ADV) are involved. As there are currently no effective treatments or vaccines for this devastating disease, it is hoped that further research will reveal why some ferrets become clinically ill and others do not. This discovery may lead to more effective treatment methods.—Jennifer L. Schori, VMD


Red Flags for Adverse Drug Reactions

Meloxicam is a nonsteroidal antiinflammatory drug (NSAID) used in both human and veterinary medicine. The most common adverse reactions associated with NSAIDs are gastrointestinal and bleeding tendencies. A 10-year-old dog with a history of atopic dermatitis was referred for an orthopedic consultation because of a 3-week history of hindlimb lameness; the anterior cranial cruciate ligament was ruptured in both stifles. Meloxicam, 0.1 mg/kg, was administered before and after surgery for analgesia. The owner reported that within 24 hours of administration, the dog had started to lick its hindlimbs. Approximately 3 days after discharge the dog was presented because of marked lethargy, elevated rectal temperature, and painful skin lesions on its rear legs. Vesicles were noted along with diffuse erythema. Mild blepharedema and conjunctivitis were also noted. Skin biopsy specimens revealed superficial and deep derma hemorrhagic, sloughing of the skin, and neutrophilic vasculitis in the deep dermis. An adverse drug reaction was diagnosed because other causes of skin disease were ruled out and clinical signs developed shortly after administration of the drug. Clinical signs resolved after discontinuation of therapy with the drug.

COMMENTARY: To absolutely confirm adverse drug reaction in this case, a provocative challenge would be needed. Given the severity of reaction, this would be unethical. The incidence of cutaneous adverse drug reactions to NSAIDs is unknown. This report highlights the importance of getting a complete drug history. Adverse drug reactions can occur at any time, even after long use. Key findings in this case that should send up red flags include the unexpected elevated rectal temperature, ocular signs, and marked edema and swelling of the limbs. Most cases resolve once the drug is withdrawn. I have treated several dogs with vasculitis presumably due to a drug reaction with pentoxifylline, 10 mg/kg.

—Karen A. Moriello, DVM, Diplomate ACVD