

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 ADV 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*

Spontaneous Aleutian disease in a ferret with Aleutian disease virus strain. Miwa Y. *EXOTIC DVM* 8:17-20, 2007.