A 6-year-old, male Labrador retriever was examined in June 2011 for decreased activity and reluctance to climb stairs. The dog had a fever and stiff gait; history revealed that 2 ticks had been attached to the dog 2 months previously. Assay was positive for Anaplasma-specific antibodies. Doxycycline was dispensed for 21 days and carprofen as needed for pain; amoxicillin and Fortiflora (purina.com) were added 5 days later. The dog returned to normal in July.

In August, the dog presented for decreased appetite, lethargy, and recurrent vomiting. Fever and thrombocytopenia were noted; Anaplasma-species antibodies were detected in in-house test. Doxycycline was dispensed and PCR testing for Anaplasma and Ehrlichia spp initiated. Sequencing revealed 100% DNA similarity to E. muris. Doxycycline was discontinued when the dog experienced vomiting and diarrhea; clostridial enteritis was diagnosed. Amoxicillin, metronidazole, and metoclopramide were dispensed. The dog improved but returned later for decreased activity and hematuria. A 10-day course of cephalaxin was recommended for presumptive urinary tract infection; however, hematuria persisted and platelet count decreased. Doxycycline was reinstituted, and hematuria resolved; no additional medical problems were noted. Blood taken 1 month later showed seroreactivity to Anaplasma spp peptide. Results from IFA testing for other organisms and PCR testing for Ehrlichia spp, including E. muris, were negative. The dog may have been coinfected with A phagocytophilum and E. muris at initial presentation, although it is possible E. muris transmission occurred later (before the second fever).

**Mycoplasma & the Coughing Ferret**

Ferrets are predisposed to numerous respiratory diseases, the most virulent being canine distemper virus. In 2007, an outbreak of respiratory disease characterized by a dry, nonproductive cough was observed in ferrets 6–8 weeks of age at a United States distribution center; before arrival, the kits had been vaccinated for distemper at a Canadian breeding facility. The disease was characterized by high morbidity but low mortality; over the next 4 years, ~8000 ferrets were affected. Ferrets responded to supportive care with the exception of a dry cough that only temporarily decreased and sometimes persisted for up to 4 years. Postmortem findings included bronchoalveolar pneumonia with prominent hyperplasia of associated lymphoid tissue. Cytological and bacterial cultures from 12 affected ferrets were positive for fast-growing, glucose-fermenting Mycoplasma spp and negative for other bacteria. No bacteria or Mycoplasma spp were isolated from 10 healthy ferrets. While PCR and nucleic acid sequencing failed to identify the Mycoplasma spp, it was found to be most similar to M. molare and M. lagogenous. The authors suggested a causal relationship between the isolation of this Mycoplasma species and an emerging disease in ferrets. One potential trigger may be the stress of shipping.

**Commentary**

A new syndrome of ferret respiratory disease is described, involving a Mycoplasma spp-associated chronic respiratory disease, and should be considered in any ferret with respiratory signs. Other considerations should include canine distemper virus, influenza virus, bacterial pneumonia, and heartworm disease; diagnostics should aim to rule out these conditions. If bronchoalveolar lavage samples are obtained, a Mycoplasma spp culture must be specifically requested, as it will grow on normal bacterial media. Treatment of the newly described Mycoplasma spp-associated disease has been unrewarding, but a regimen similar to that used in Mycoplasma spp infections in rats (ie, combination therapy with enrofloxacin and doxycycline) may be a reasonable first choice.—Sarah Churgin, DVM

**Source**