Prevalent Pedigreed Feline Protozoal Diarrhea

The flagellated protozoan parasite *Tritrichomonas foetus* is a common cause of large bowel diarrhea in cats in the United States. In this study, the prevalence of *T. foetus* infection in the United Kingdom was examined. Of 111 diarrheic feline fecal samples, 16 (14%) were found to be positive for *T. foetus* DNA. Significantly more of the infected cats were 1 year of age or younger, and pedigreed cats were significantly more likely to test positive than domestic crossbred cats. Siamese and Bengal cats were found to be overrepresented. *T. foetus* may be an important, common, and previously unrecognized cause of diarrhea in cats in the United Kingdom.

**COMMENTARY:** Significance of *T. foetus* as a potential cause of large bowel diarrhea in cats has only recently been recognized in the United States. This study suggests a similar importance of the parasite in the United Kingdom and reports that younger, purebred cats are at apparently higher risk. Prevalence in the United States may be higher than that in the United Kingdom (31% in 1 study of cats at an American cat show), which might be related to a higher density of indoor pedigreed cats in the United States. Regardless, *T. foetus* should be a differential for cats with persistent large bowel diarrhea, especially in younger cats and/or those from a household with pedigreed cats or another multicat establishment.—Jennifer L. Schori, VMD


Protein, Amino Acid Profile, & Kidney Disease

Previous studies have shown that reducing dietary crude protein concentration can slow progression of kidney disease in companion animals. This experiment compared 3 commercially available geriatric foods with an experimental diet. Forty healthy geriatric beagles were randomly assigned to 1 of 4 foods (A = experimental food, B = Royal Canin Mature Medium Breed, C = Purina Dog Chow Senior, and D = Eukanuba Senior Maintenance) for a 6-month testing period. Blood chemistry, microalbuminuria, and dual x-ray absorptiometry were done to evaluate changes in renal parameters and body composition over time. At the end of the 6 months, blood creatinine did not differ among dietary treatments, although dogs fed food A had lower BUN levels and BUN-creatinine ratios when compared with those fed the 3 commercial diets. Body weight and body fat increased in dogs fed food B, while foods A, C, and D maintained body fat. Dogs fed foods B and D lost lean muscle. The experimental food contained less protein and lower concentrations of phosphorus than the 3 commercial diets. Reducing the dietary protein concentration may slow renal decline by reducing negative effects of increased protein metabolism. Some loss of lean muscle could potentially be prevented by providing additional essential amino acids that promote protein synthesis and prevent protein degradation.


Endocrinopathy Wipes Their Tears?

Case reports describing dogs or humans with common endocrinopathies have included keratoconjunctivitis sicca (KCS) as a finding. In this study, Schirmer’s tear testing (STT) results from 100 healthy dogs were compared with those of dogs with naturally occurring hypothyroidism (*n* = 12), hyperadrenocorticism (*n* = 16), and diabetes mellitus (*n* = 18). The results of the STT varied from 12.3 to 14 in dogs with known or suspected endocrinopathies and were 19.6 in normal dogs. The difference was statistically significant; however, at the time of the study, only a few dogs had frank KCS (*n* = 3 that also had diabetes mellitus and *n* = 2 that also had hypothyroidism). There was no correlation between success of treatment or severity of clinical signs, but there was a clinical trend toward lower STT values with duration of disease. Corneal sensitivity was measured in 12 of 18 dogs and was lower in diabetic dogs than in 12 dogs matched for breed, age, and gender. Dogs with experimentally induced hypothyroidism were not reported to have decreased tear production. Decreased corneal sensitivity in humans has been associated with diabetic neuropathy, and this is potentially a mechanism in dogs. Another possible explanation in diabetic dogs is the importance of insulin in lacrimal gland signaling. The authors recommend STT in dogs with known or suspected endocrinopathies.

**COMMENTARY:** Clearly, the take-home message from this study is that decreased tear production and KCS are underdiagnosed in dogs with common endocrinopathies. In addition, diabetic dogs may have decreased corneal sensitivity, leaving them vulnerable to corneal damage.—Karen A. Moriello, DVM, Diplomate ACVD