

capsules

THE CURRENT LITERATURE IN BRIEF

Cryptosporidium & Isospora in Dogs & People

An 8-week-old Yorkshire terrier had a history of diarrhea, weakness, and isosporiasis. A necropsy was performed within 4 hours after death. Significant findings included a thymus that was one tenth the normal size and lymphoid depletion. *Cryptosporidium* organisms were found in the stomach crypts, gastric surface epithelium, and the villus border of the small intestine. The small intestine contained *Isospora* organisms at sexual and asexual stages. *Cryptosporidium* and *Isospora* species are primarily opportunistic organisms that may be life-threatening in individuals with compromised immune systems. The lymphoid depletion and thymic atrophy in this puppy suggest an underlying immunosuppressive factor, such as viral infection or malnutrition. The *Cryptosporidium* was identified with PCR and molecular analysis as *C. canis*. Although *Cryptosporidium* infections in dogs most often occur in the intestine, this case is different because of the invasion of the gastric region, which may have been due to displacement by the *Isospora* species or may represent systemic infection.

COMMENTARY: *Cryptosporidium* is a worldwide pathogen that infects many different species, including humans. *Cryptosporidium canis* and *C. parvum* are the only species that have been found in naturally infected dogs. *Cryptosporidium canis* appears to be the only species that is clinically significant and it is not believed to be pathogenic to humans; however, any suspected case should be treated as a zoonotic risk.

Gastrointestinal cryptosporidiosis in a puppy. Miller DL, Liggett A, Radi ZA, Branch LO. VET PARASITOL 115:199-204, 2003.