63

Evaluation of fecal samples from dogs with naturally acquired gastrointestinal nematodes for coproantigen of *Trichuris vulpis*, *Toxocara canis*, and *Anyclostoma caninum*.

Chris Adolph^{1*}, David Elsemore², Jennifer Cote², Rita Hanna², Jinming Geng², Susan Little¹. ¹Center for Veterinary Health Sciences, Oklahoma State University, Department of Veterinary Pathobiology, Stillwater, OK, and ²IDEXX Laboratories, Inc., Rapid Assay, Westbrook, ME.

Dogs are commonly infected with gastrointestinal nematodes, but fecal flotation may not accurately identify all infections, particularly when worm burdens are low or only immature stages are present. To determine the utility of fecal ELISA at identifying these infections, we evaluated fecal samples from 92 adult dogs in which naturally occurring infections with Trichuris vulpis (36/92; 39.1%), Toxocara canis (9/92; 9.8%), and Ancylostoma caninum (44/92; 47.8%) were documented at necropsy and compared results of an ELISA (IDEXX Laboratories, Inc.) to identification of eggs by passive flotation using sodium nitrate and active centrifugation in sugar solution, Sensitivity of T. vulpis detection was 63.9% (23/36) by passive flotation, 77.8% (28/36) by active flotation, and 86.1% (31/36) by fecal ELISA. Sensitivity of T. canis detection was 44.4% (4/9) by passive flotation, 55.6% (5/9) by active flotation, and 77.8% (7/9) by fecal ELISA. Sensitivity of A. caninum detection was 81.8% (36/44) by passive flotation, 84.1% (37/44) by active flotation, and 97.7% (43/44) by fecal ELISA. Unexpected positives for T. vulpis and A. caninum, but not T. canis, were also occasionally found by both fecal flotation and ELISA and may be due to coprophagy or failure to detect nematodes at necropsy. Taken together, these data suggest that fecal ELISA for coproantigens is a useful adjunct to microscopic examination of fecal flotation preparations for accurately identifying nematode infections in canine fecal samples.