Effect of intestinal inflammation on fecal elastase concentration in dogs.

Battersby IA, Peters IR, Day MJ, German AJ, Hall EJ.

School of Veterinary Medicine, University of Bristol, UK; Small Animal Hospital, University of Liverpool, UK. i.a.battersby@bristol.ac.uk.

BACKGROUND: A commercially available ELISA kit for fecal elastase measurement can be used in the diagnosis of exocrine pancreatic insufficiency (EPI) in dogs. However, other causes of diarrhea also may affect fecal elastase concentration. OBJECTIVE: This study was undertaken to determine whether intestinal inflammation alters fecal elastase concentration in dogs. METHODS: Fecal elastase concentration was measured with an ELISA kit in the following groups of dogs: group 1 (n=16), control dogs, without gastrointestinal disease; group 2 (n=14), dogs with diarrhea and no histopathologic evidence of intestinal inflammation; and group 3 (n=12), dogs with diarrhea and histopathologic evidence of intestinal inflammation. Serum trypsin-like immunoreactivity (TLI) was determined in dogs with diarrhea to rule out EPI. RESULTS: All dogs in groups 2 and 3 had serum TLI concentrations <5 microg/L, ruling out EPI. No statistically significant difference was found in fecal elastase concentration among the 3 groups of dogs (P=.969). CONCLUSIONS: The results indicate that intestinal inflammation does not affect fecal elastase concentration, such that test results may be used to exclude a diagnosis of EPI even in animals with inflammatory bowel disease.

PMID: 15732018 [PubMed - in process]