

## Hypergammaglobulinemia as a Marker of Hepato-pancreatic Involvement in Enteropathic Cats

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F. Tulone; A. Pierini; E. Gori; F. Perondi; G. Lubas; S. Citi; V. Marchetti  
University of Pisa, Pisa, Italy

Inflammatory bowel disease (IBD) in human patients showing hypergammaglobulinemia has a significantly higher association with extra-intestinal manifestations compared to IBD patients without hypergammaglobulinemia. Cats with IBD or gastrointestinal lymphoma are reported to have a prevalence of 70% of hypergammaglobulinemia. Currently, there are no available data on clinical significance of hypergammaglobulinemia in enteropathic cats.

The aim of this study was to evaluate serum protein profile and globulins levels in enteropathic cats with or without hepatic and/or pancreatic involvement.

A retrospective review was conducted on ten-year medical records of cats presented to the University Veterinary Teaching Hospital, looking for ultrasonographic findings of intestinal inflammation with or without liver and/or pancreas involvement. Changes in echogenicity and thickness in wall layer and in mesenteric lymph nodes were considered compatible with intestinal inflammation. Changes in parenchymal size, echogenicity and homogeneities, presence of dilated biliary tract and gallbladder contents and walls were considered compatible with liver inflammation. In addition, irregular contour, decreased echogenicity, increased duct size and adjacent free fluid or hyperechoic mesentery fat were considered compatible with pancreatitis. Cats were included in the study if a complete hemato-biochemical profile was also available. The following serum parameters were evaluated: total protein, albumin, globulin, albumin/globulin ratio (A/G), and protein electrophoresis.

Ninety-five cats met the inclusion criteria and were included in the study. Three groups were arranged: cats with ultrasonographic signs of intestinal inflammation associated to pancreatic and/or hepatic involvement (group A, n=45), cats with hepato-pancreatic inflammation alone (group B, n=20), and cats with intestinal inflammation alone (group C, n=30). Hyperproteinemia was observed in twenty-eight patients (30%) and hyperglobulinemia in forty-two (44%). Eight cats (8.4%) showed hypoproteinemia and fifty-two (54.8%) showed hypoalbuminemia. A decreased A/G was observed in seventy-five cats (79%). Cats in group A showed a higher globulins percentage levels (median 21.0%, range 6.1%-54.9%) than those in group C (median 16.8%, range 5.9-33.8%) (Kruskal-Wallis test, p=0.016). No difference in the globulins percentage levels was observed between group A and B and between group B (median 16.6%, range 4.1-39.1%) and C.

Increased globulin levels seem to be occurring in cats with more severe intestinal inflammation associated with hepato-pancreatic disease. Therefore, the presence of hypergammaglobulinemia could be considered as a marker of the hepato-pancreatic involvement in enteropathic cats.

### DISCLOSURES

No disclosures to report.

### SPEAKER INFORMATION

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#### [F. Tulone](#)

University of Pisa  
Pisa, Italy

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