Oral presentations

Gallbladder mucocoele in the Border terrier: another manifestation of gluten intolerance in the breed?

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OBJECTIVES

To determine if there is evidence of gluten intolerance as the cause of gallbladder mucocoele (GBM) formation in Border terriers (BTs), a breed previously known to suffer from paroxysmal-dyskinesia a systemic manifestation of gluten-intolerance. Testing of serum anti-canine gliadin IgG (AGA IgG), anticanine transglutaminase-2-IgA autoantibodies (TG2 IgA) and cholecystokinin levels

(CCK) were performed. We hypothesised that there would be serological evidence of gluten intolerance compared to controls with an increase in AGA IgG and TG2 IgA and a decrease in CCK.

METHODS

Medical records from two referral hospitals were obtained from 2011 and 2019 to identify BTs with GBM, non-BTs with GBM and control BTs with non-biliary disease. Enzyme-linked immunosorbent-assays were performed on stored serum samples for AGA IgG, TG2 IgA and CCK. Statistical analysis was performed using Kruskal-Wallis to identify differences between the groups.

RESULTS

Fifteen BTs with GBM, 17 non-BT with GBM and 14 control BT with non-biliary disease were identified. Median TG2 IgA in BTs with GBM was 0.73 which was significantly greater than in control BTs at 0.41 ($p < 0.045$). Median CCK in BTs with GBM was 13pg/ml, which was significantly lower than in control BTs at 102.6pg/ml ($p < 0.016$).

STATEMENT (CONCLUSIONS)

This is the first study to suggest a mechanism for GBM formation in the BT. The finding of impaired CCK secretion and increased TG2 IgA is homologous to gallbladder disease identified in human coeliac disease. Therefore the results suggest gluten intolerance as a possible cause of GBM formation in BTs.

A retrospective study assessing ultrasonographic progression of canine biliary sludge (BS) over time

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OBJECTIVES

To establish a relationship between the presence of BS and development of gall bladder mucocoele (GBM) in dogs.

METHODS

Cases were identified by searching the diagnostic imaging database. Inclusion criteria included presence of BS, with at least one follow up ultrasonographic examination. Signalment, length of follow up, number of ultrasonographic examinations, concurrent disease, serum biochemistry, medications and changes to sludge character were recorded for analysis.

RESULTS

23 dogs met inclusion criteria. 11/23 (47%) had increased alkaline phosphatase and 12/23 (52%) had hypercholesterolaemia at presentation. 20/23 had concurrent disease. 3/23 had elevated liver enzymes only. Mean number of repeat examinations was 3.5 (range 2-9) and 10/23 cases had follow-up longer than 12 months (range 0.75-92 months). 14/23 (60%) cases were prescribed ursodeoxycholic acid (UDCA). 6/23 cases (26%) [4 from the UDCA treatment group] saw decreases in volume of BS. 2/23 cases had complete resolution. 6/23 saw increases in amount or organisation of BS [5/6 despite UDCA treatment]. 9/23 cases had static levels of BS. 1 case progressed to GBM 2 years after BS diagnosis, and this dog

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had received prednisolone for idiopathic pulmonary fibrosis.

STATEMENT (CONCLUSIONS)

To the author's knowledge, this is the first study assessing changes to gall bladder contents over time beyond 12

months. In addition, this is the first documentation of progression from BS to GBM. However, this series contains multiple cases with regression of or static BS. Long term prospective research is required into BS, in order to develop optimal management protocols, and assess risk factors for progression to GBM.

Diagnostic value of serum bile acids concentrations in dogs with hepatobiliary disease

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OBJECTIVES

To evaluate fasting and post-prandial serum bile acids concentrations (SBAs) in different liver diseases in dogs. To assess sensitivity and specificity of serum bile acids for the diagnosis of the different liver diseases.

METHODS

Multicentre retrospective study. Dogs that had a liver biopsy and concurrent serum bile acids measured between September 2008 and September 2015 were included. Liver diseases were grouped according to standardised histological criteria. Dogs with nonspecific reactive hepatitis (NRH) were used as a control group.

RESULTS

341 dogs were included in the study, of which 76 had NRH. There was large overlap between resting and post-prandial SBAs between different disease categories. Using a cut-off value of 30 $\mu\text{mol/L}$, the sensitivity of resting serum bile acids was 41.7% for acute hepatitis (AH, $n = 12$), 57.1% for cholangitis ($n = 21$), 58.9% for chronic hepatitis (CH, $n = 90$), 70.3% for congenital circulatory anomaly (CCa, $n = 64$), 100% for cirrhosis ($n = 4$), 17.5% for neoplasia ($n = 42$) and 16% for reversible hepatocytic injury (RHI, $n = 25$). The sensitivity of post-prandial bile acids was 0% for AH ($n = 2$), 50% for cholangitis ($n = 2$), 55.6% for CH ($n = 36$), 86.7% for CCa ($n = 45$), 100% for cirrhosis ($n = 3$), 27.3% for neoplasia ($n = 11$) and 60% for RHI ($n = 10$). Using a cut-off of 30 $\mu\text{mol/L}$, specificities were 73.3% (resting SBAs) and 43.2% (post-prandial SBAs) for all diseases.

STATEMENT (CONCLUSIONS)

SBAs are not useful for differentiating hepatobiliary diseases. Fasting SBAs are a variably sensitive and a reasonably specific marker for hepatobiliary disease, while post-prandial SBAs are sensitive but poorly specific.

Extrahepatic biliary duct obstruction caused by an helminth in a cat in the UK

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OBJECTIVES

To present the case of a domestic short hair cat diagnosed with extrahepatic biliary obstruction caused by an helminth. The cat had never travelled outside the UK.

METHODS

A 11 year old, female neutered, Domestic Short Hair cat was presented to our hospital with a 5 day history of vomiting and progressive lethargy and anorexia. Investigations performed at the referring practice had revealed hyperbilirubinemia and elevated ALT and GGT activities. Serial blood samples taken over the following 3 days had revealed gradual worsening of the hyperbilirubinemia. After she was presented to us, abdominal ultrasound

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On: Wed, 26 Apr 2023 15:35:01