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DATE PRESENTING CLINICAL SIGNS

6/30/22

P presented on 06/27/2022 for vomiting and diarrhea, both with blood per O. PE largely unremarkable. Bloodwork unremarkable. Abdominal rads = linear to irregularly shaped, radiopaque material in cranial abdomen. Does not appear to be in stomach. AFAST scan = large splenic mass. Chest radiographs, no obvious signs of mets.

PATIENT

Barklay McGuire

SPECIES

Canine

BREED

West Highland Terrier

SEX

Neutered Male

AGE

7/24/13

WEIGHT

19.6 Pounds

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Everhart Vet Hospital

REFERRING VET

Dr. Delfavero

INVOICE

39154

Current Medications: 24mg Cerenia SID, 250mg Metronidazole BID
Provable *All started on 06/27/22
Lab Results: See attached.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Prostate (neutered) is normal in size, echotexture and echogenicity for a neutered male.

The right kidney is normal in size (4.58 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

The left kidney is normal in size (4.45 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Adrenal Glands

The adrenal glands are bilaterally uniformly plump egg-shaped adrenals (left measures 1.64 cm long x 0.37 cm at the cranial pole and 0.57 cm at the caudal pole, right measures 1.7 cm long x 0.60 cm at the cranial pole and 0.46 cm at the caudal pole), hypoechoic in echogenicity with bilateral dystrophic mineralization noted.

This is most likely a benign age-related change. This change can be caused by chronic stress/disease, so investigation for/management of other disease (chronic kidney disease, hyperthyroidism, etc.) is recommended.

Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). A 2.0 cm cavitated mass is noted at the head of the spleen, which does not disrupt the capsule, in addition to well demarcated multifocal hyperechoic homogeneous nodules throughout the parenchyma. Splenic vasculature appears normal.

Liver

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. Multifocal intrahepatic biliary mineral is present. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris, some of which appears to be mineral. Small cholecystoliths are suspected. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy. No pericardial effusion or cardiac masses noted in these images.

ULTRASONOGRAPHIC FINDINGS

- Cavitated spleen mass – Benign differentials such as a hematoma as well as malignant disease such as hemangiosarcoma are possible and cannot be distinguished definitively ultrasonographically.
- Gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili. **Some of the debris appears to be mineral with small cholecystoliths noted within the gallbladder and within the intrahepatic biliary tree. No evidence of distention or obstruction is noted.
- Flat adrenal glands – This can be a normal patient variant and/or a sign of exogenous cortisol administration. If exogenous steroids are not being administered, hypoadrenocorticism (either relative or absolute) should be considered.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- The reportedly planned splenectomy is warranted, given the risk of hemorrhage/hemoabdomen, even with a benign tumor.
- However, the splenic mass is likely an incidental finding and contributing to this patient's hematemesis and hematochezia. Therefore, pre-surgical recommendations include a coagulation panel (if not recently evaluated) as well as a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory for further evaluation of GI and

pancreatic function, and baseline cortisol, with a follow up ACTH stimulation test to rule out hypoadrenocorticism if the baseline cortisol is <2.0. In the meantime, empirical deworming with a 5-day course of Panacur as well as empirical supportive medical management of gastritis with antiemetics and gastroprotectants, including Sucralfate, are recommended. A probiotic +/- Metronidazole or Tylosin could also be considered, given the reported hematochezia.

- Intrahepatic biliary mineral is often an incidental and not clinically significant finding, and should be interpreted in combination with changes in liver enzymes, total bilirubin, and/or clinical signs such as cranial abdominal pain, gastrointestinal signs not responsive to medical management, etc.



The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

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