



**PATIENT**

Marley Masters

**SPECIES**

Canine

**BREED**

Havanese

**SEX**

Neutered Male

**AGE**

13 Years

**WEIGHT**

17.8

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Chaley Hunt, LVT

**HOSPITAL NAME**

Town & Country AH

**REFERRING VET**

Dr. Karen Hinkle

**INVOICE**

46306

**DATE**

3/29/23

**PRESENTING CLINICAL SIGNS**

Here for increased liver values and anorexia, first examined for this on 3/6/23. History of gall bladder disease and pancreatitis. Started back on Ursodiol mid-March.

Abnormal PE/Chem/CBC/UA Results: ALT - 478 AST - 104 ALP - 1352 Amylase - 2494 Lipase - 910 BUN - 40

**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.

The area of the prostate is examined without evident prostatic pathology.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. Multiple small bilateral cortical cysts are present. The left kidney measures 4.92 cm. The right kidney measures 5.25 cm.

**Adrenal Glands**

The area of the right adrenal gland is examined without evident pathology.

The left adrenal gland is normal in size (0.45 cm at the cranial pole and 0.75 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**Spleen**

Spleen is subjectively large in size with a swollen and scalloped/undulating capsular contour. Multifocal coalescing nodules are noted throughout the parenchyma. Splenic vasculature appears normal. Enhanced hyperechoic surrounding fat is noted.

**Liver**

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as moderate suspended and gravity dependent echogenic debris. 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



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per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

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

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**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.

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**Free Abdomen**

There is a scant amount of anechoic free fluid noted adjacent to the spleen as well as a mildly enlarged, round structure in the area of the right adrenal gland that is believed to be an enlarged lymph node (i.e., hepatic lymph node).

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There is no apparent lymphadenopathy noted in these images.

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**PRIMARY FINDINGS**

- **Honeycomb Spleen** – This finding is strongly suggestive of infiltrative disease such as round cell neoplasia. Benign disease cannot be ruled out but is considered less likely.
- **Heterogenous Liver** – These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.
- **Moderate 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.
- **Cranial abdominal lymphadenopathy** – Both infiltrative neoplasia and reactive lymphadenopathy are differentials and cannot be differentiated without tissue sampling.

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**SECONDARY FINDINGS**

- Age related kidney changes with multiple small cortical cysts bilaterally

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

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Fine needle aspirates of the spleen and liver are recommended if patient's coagulation status is appropriate.



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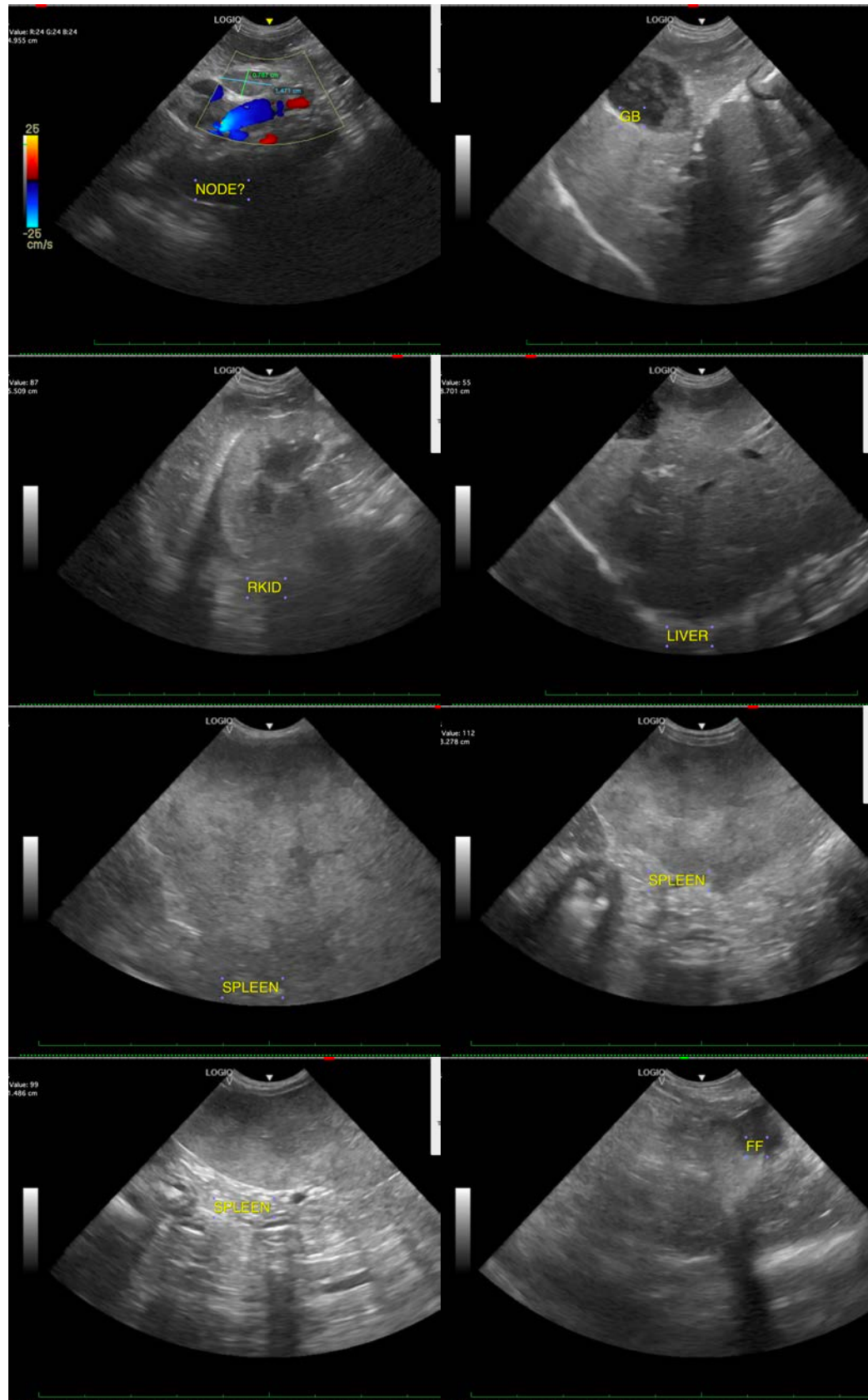
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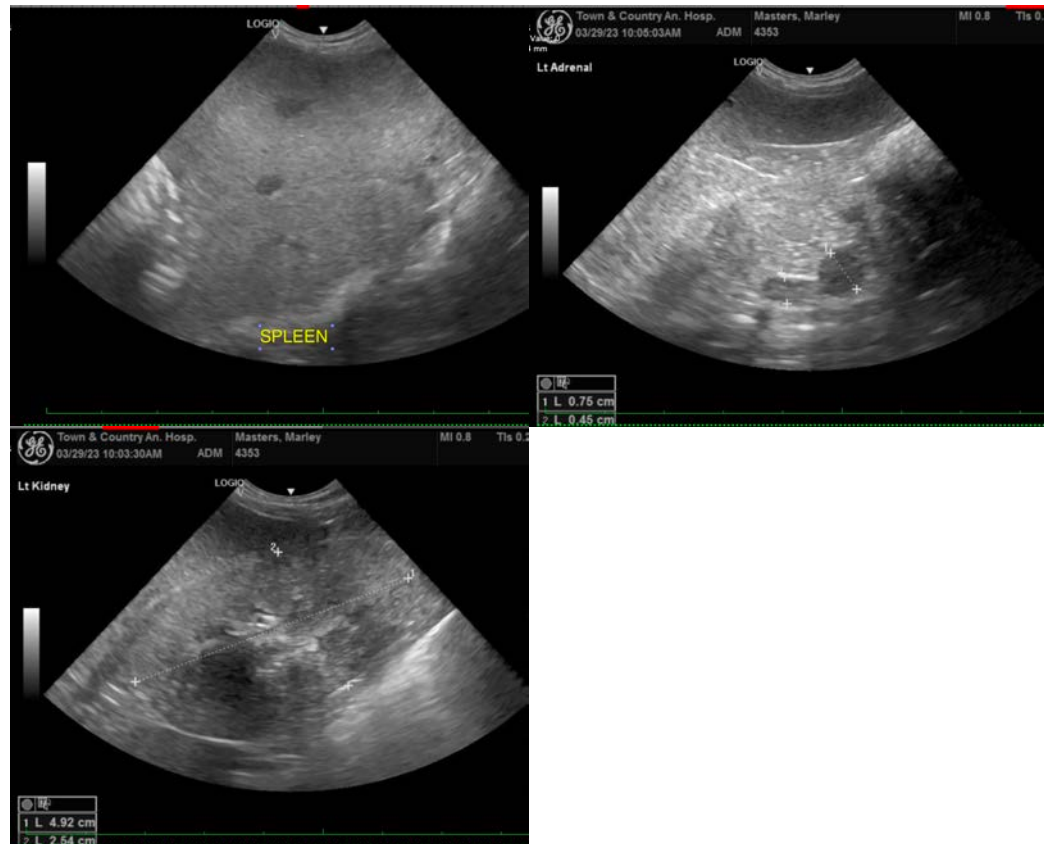
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Beth Johnson, DVM, DACVIM**  
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