



PATIENT

Murray McClelland

SPECIES

Canine

BREED

Labrador Mix

SEX

Spayed Female

AGE

8 years

WEIGHT

86.2 lbs

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Dr. Harris

HOSPITAL NAME

TotalBond VH Bethel

REFERRING VET

Dr. Schanche

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DATE

2/9/22

PRESENTING CLINICAL SIGNS

8yo FS Lab with a history of elevated liver values that were first noted on routine lab work in July 2019. Liver cocktail and abdominal ultrasound did not improve values, but has been increased at each recheck, although stable. Ultrasound today to further explore elevated values. July 2019 ALT 164- A-FAST at that time as unremarkable August 2019 ALT 215- liver cocktail initiated (amoxicillin, metronidazole, Denamarin) September 2019 ALT 215- Full abdominal ultrasound was unremarkable. Rec liver biopsy but O declined November 2019 ALT 153- no further treatment January 2021 ALT 295- liver cocktail initiated, but no followup February 2022 ALT 206- Rec repeat full ultrasound
Abnormal PE/Chem/CBC/UA Results: July 2019 ALT 164- A-FAST at that time as unremarkable August 2019 ALT 215- liver cocktail initiated (amoxicillin, metronidazole, Denamarin) September 2019 ALT 215- Full abdominal ultrasound was unremarkable. Rec liver biopsy but O declined November 2019 ALT 153- no further treatment January 2021 ALT 295- liver cocktail initiated, but no followup February 2022 ALT 206- Rec repeat full ultrasound

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is moderately distended with anechoic contents. It has normal uniform wall thickness (< 0.2 cm). No masses or cystoliths are observed.

Left kidney is normal in size (6.59 cm), shape and echogenicity. It has smooth peripheral margination and appropriate corticomedullary distinction. There is no pyelectasia noted. No mineral is observed.

Right kidney is normal in size (6.75 cm), shape and echogenicity. It has smooth peripheral margination and appropriate corticomedullary distinction. There is no pyelectasia noted. No mineral is observed.

Adrenal Glands

Left adrenal gland is normal in size (0.6 cm at cranial pole and 0.64 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable.

Right adrenal gland is normal in size (1.88 cm long x 0.66 at cranial pole and 0.73 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable.

Spleen

Spleen is subjectively normal in size with normal smooth margins. Parenchyma is normal in echogenicity and echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively normal in size. Margins are sharp and smooth. It has normal homogenous echotexture and normal echogenicity. No focal lesions are observed. Visible vasculature appears normal. GB is moderately distended with anechoic bile and gravity dependent echogenic sediment. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.



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Gastrointestinal

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The visible gastric wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm). The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.

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The small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). There are no luminal contents noted within small intestines.

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Colon is normal in wall thickness (< 0.2 cm) and layering.

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Pancreas

Pancreas has normal homogenous echotexture and is normal in echogenicity and smooth margination. There is no evidence of peripancreatic inflammation.

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Free Abdomen

Lymph nodes are normal with no observed enlargement.

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ULTRASONOGRAPHIC FINDINGS

Primary Findings

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Canine 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.

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Otherwise, unremarkable abdomen.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Recommendations for this patient:

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Alanine Aminotransferase (ALT) - ALT is more liver specific than other enzymes. It is a good indicator of active liver damage (cell membrane disruption, cellular necrosis) if the value is increased by at least 3-4 times normal. Differentials include infectious disease, including Leptospirosis, inflammatory disease (ie. active hepatitis, copper, other), toxic insult as well as infiltrative neoplasia.

ALT levels vary in cases of vascular anomalies such as microvascular dysplasia and portosystemic shunts (PSS), but are often less significantly increased.

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Non primary hepatic causes of increased ALT can include a variety of other metabolic conditions including, but not limited to, pancreatitis, gastroenteritis, parasitic disease, dental disease, vacuolar or endocrine hepatopathy from diabetes mellitus or hyperadrenocorticism (steroid-induced),

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hypoadrenocorticism, certain drugs (e.g. phenobarbital, corticosteroids, azathioprine, etc.), and muscle ALT (more likely if AST and CK concurrently increased).

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Specifically for this patient recommendations include bile acids to further assess hepatic function as well as Leptospirosis testing if not recently evaluated and ultimately due to the chronicity of the increased ALT a liver biopsy is warranted.

BREED

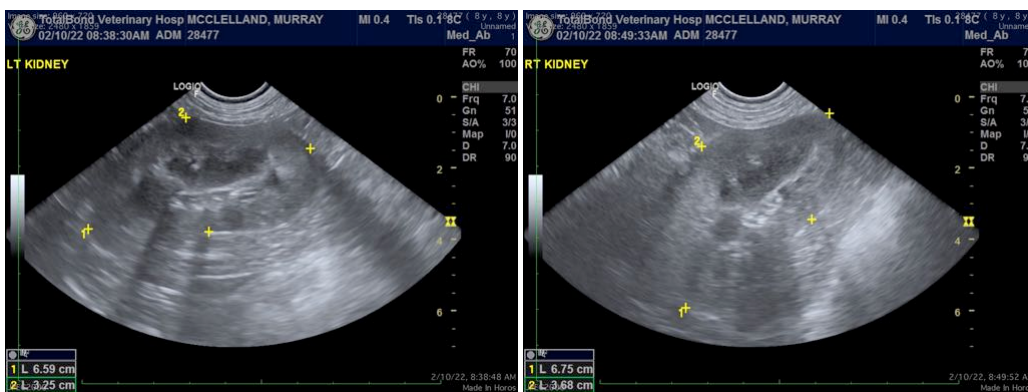
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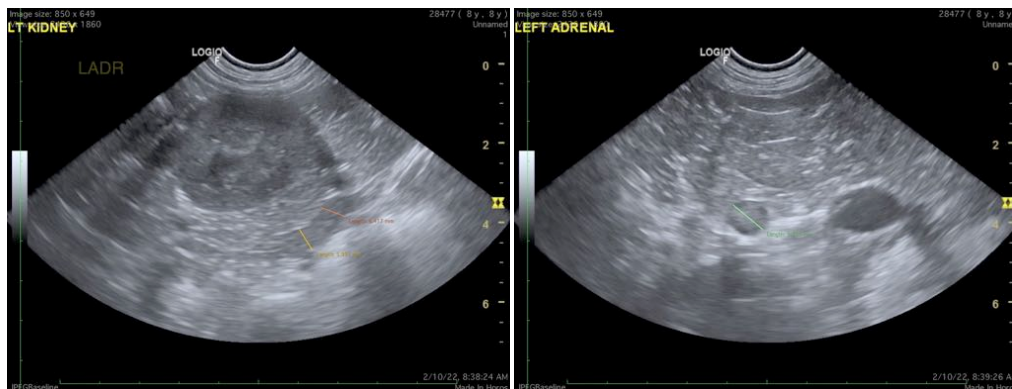
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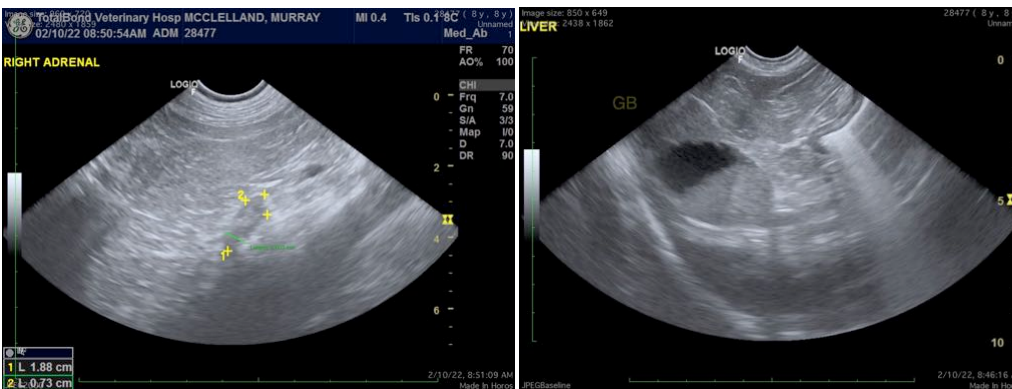
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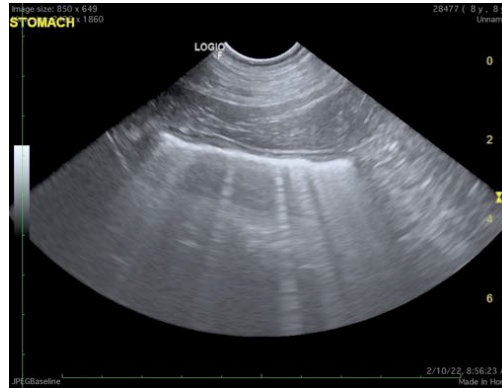
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

Beth.Johnson@SonoPath.com