

**DATE PRESENTING CLINICAL SIGNS**

10/5/21

History of elevated liver values. Seeing Dr. Petrus at AVIM, he recommended repeat scan and that he discussed testing for copper quantification and liver biopsy.

PATIENT

Lloyd Littlefair

Current Medications: N/A.

SPECIES

Canine

Lab Results: ALT history 2021: 2/22 280. 3/8 267. 5/4 241. 7/5 176. 8/11 211.
 Lepto titer done 2/27/21 and was unremarkable.
 8/25: Bile acids pre and post: Pre 4.5 [<13] Post 34.5 [<25]
 T4, Free T4, TSH all within normal limits.

BREED

Jack Russell Mix

Date of Previous IntraPet Ultrasound: February 2021.

SEX

Male Neutered

Sedation: Sedation not required.

Stat Report: Stat report not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**AGE**

2015

Urinary System

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is mildly distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

WEIGHT

12 kg.

The prostate is not definitively visualized due to its pelvic location.

INTERPRETED BY

Andrea Nicastro, DVM,
 Diplomate ACVIM
 (Small Animal Internal
 Medicine)

The left kidney is normal size (5.34 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (4.93 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

HOSPITAL NAME

Banfield White Marsh

Adrenal Glands

The left adrenal gland is normal size (0.46 cm at cranial pole) (0.59 cm at caudal pole) (1.82 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

REFERRING VET

Dr. Racz

The right adrenal gland is normal size (0.69 cm at cranial pole) (0.61 cm at caudal pole) (2.74 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

INVOICE

11956kk

Spleen

The spleen is normal in size (1.58 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is similar in echogenicity relative to the spleen and subtly heterogenous in appearance. No distinct focal lesions are observed. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A scant amount of suspended, echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is mildly distended with ingesta/soft shadowing material. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

Pancreas

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

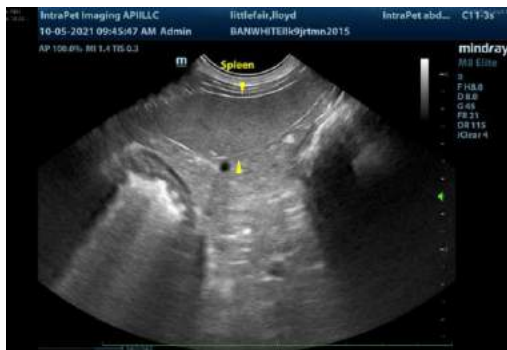
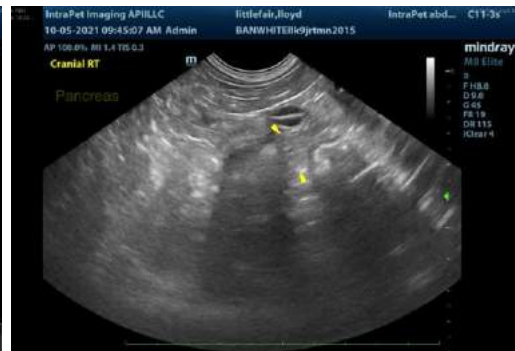
ULTRASONOGRAPHIC FINDINGS

- Non-specific, diffuse hepatopathy. Differentials include inflammatory/immune-mediated disease (i.e., chronic active hepatitis, bacterial cholangiohepatitis), hepatotoxicosis (i.e., copper), reactive hepatopathy, and other.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

If an aggressive approach is desired, a surgical liver biopsy with aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for copper quantitation is recommended. If a more conservative approach is desired, an antibiotic trial (i.e., amoxicillin, clavulanic acid) can be considered to indirectly assess for bacterial cholangiohepatitis (if this has not already been performed). If liver values do not improve within 7-10 of initiating therapy, hepatic tissue sampling should be reconsidered. If liver values do improve, at least a 4-6-week course of antibiotics is recommended with continuation of antibiotics one week beyond normalization of the ALT. If surgery is to be pursued, three-view thoracic radiographs are recommended prior to anesthesia.





The information and recommendations provided are based on the images presented by the referring veterinarian. 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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