

**PATIENT PRESENTING CLINICAL SIGNS**

Cookie LaRose History: Elevated liver values.

Abnormal PE/Chem/CBC/UA Results: ALT 305, ALP 471, GLOB 4.9

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Canine

**Urinary System**

**BREED** The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

**SEX**

Spayed female

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. Bilateral pinpoint medullary mineral was observed. The left kidney measured 4.1 cm in length. The right kidney measured 4.3 cm in length.

**AGE**

8 years

The area of the aortic trifurcation was free of pathology.

**Adrenal Glands**

**WEIGHT**

14

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.44 cm width at the caudal pole and 0.34 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.43 cm width at the caudal pole and 0.38 cm width at the cranial pole.

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

**Spleen**

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

**IMAGING PERFORMED BY**

JKI

**Liver**

The liver presented mildly enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with primarily anechoic luminal content. The cystic and common bile ducts were normal.

**HOSPITAL NAME**

Hamburg Veterinary  
Clinic

**REFERRING VET**

Dr. DenHeyer

**Gastrointestinal**

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

**INVOICE**

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The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

**DATE**

04/15/2022

Normal visible colon wall layers were present with apparent formed feces in lumen.



**PATIENT** *Pancreas*

Cookie LaRose The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

**SPECIES** *Free Abdomen*

Canine No overt lymphadenopathy or peritoneal effusion was present.

**BREED** **ULTRASONOGRAPHIC FINDINGS**

Yorkie

- Benign hepatopathy.

**SEX** **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Spayed female The overall appearance of the liver although nonspecific is consistent with benign hepatopathy with considerations including vacuolar hepatopathy, or nonspecific inflammatory/immune mediated hepatopathy i.e. hepatitis or cholangiohepatitis. No evidence of neoplastic criteria was observed. Assuming normal clotting status, an ultrasound guided FNA of the liver is warranted for screening cytology and potential identification of inflammatory cell type if present. Hepatic core surgical biopsy may be indicated for definitive diagnosis. Hepatic functionality is assumed to be normal if normal BUN, BG, ALB and CHOL levels. Hepatosupportive medications including Denamarin and ursodiol may prove beneficial with initial monitoring. No evidence of portosystemic shunt.

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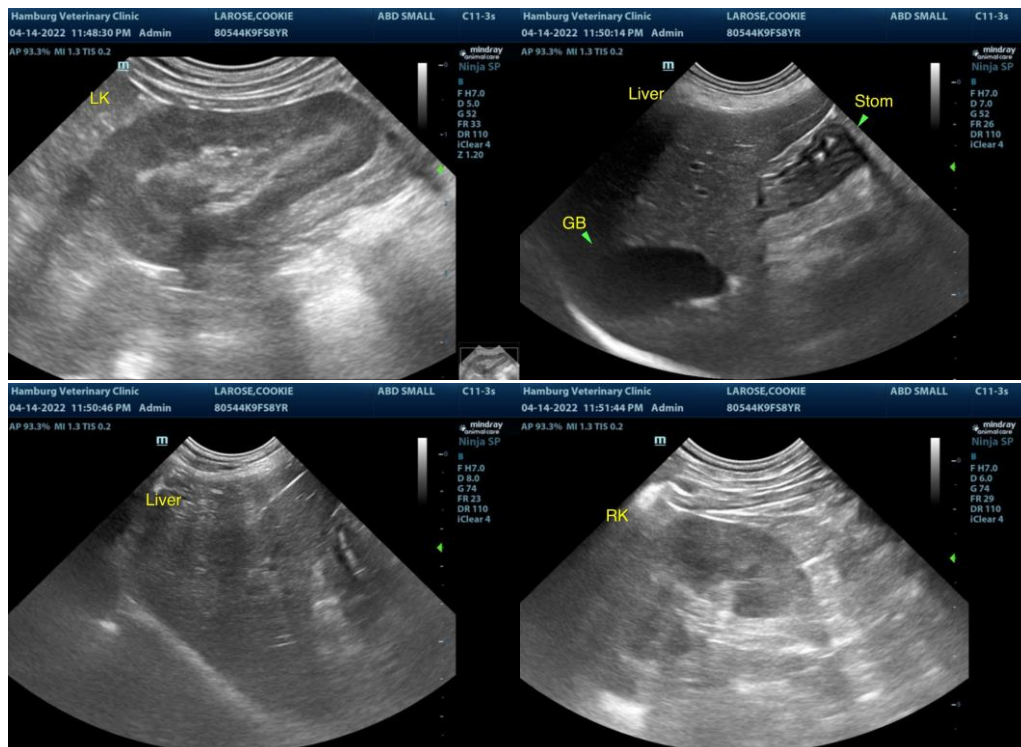
Dr. DenHeyer

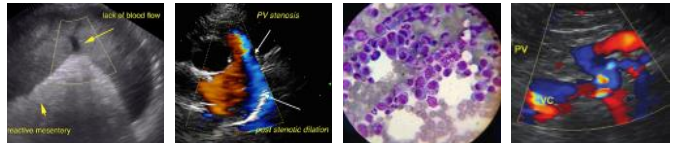
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**PATIENT**

Cookie LaRose

**SPECIES**

Canine

**BREED**

Yorkie

**SEX**

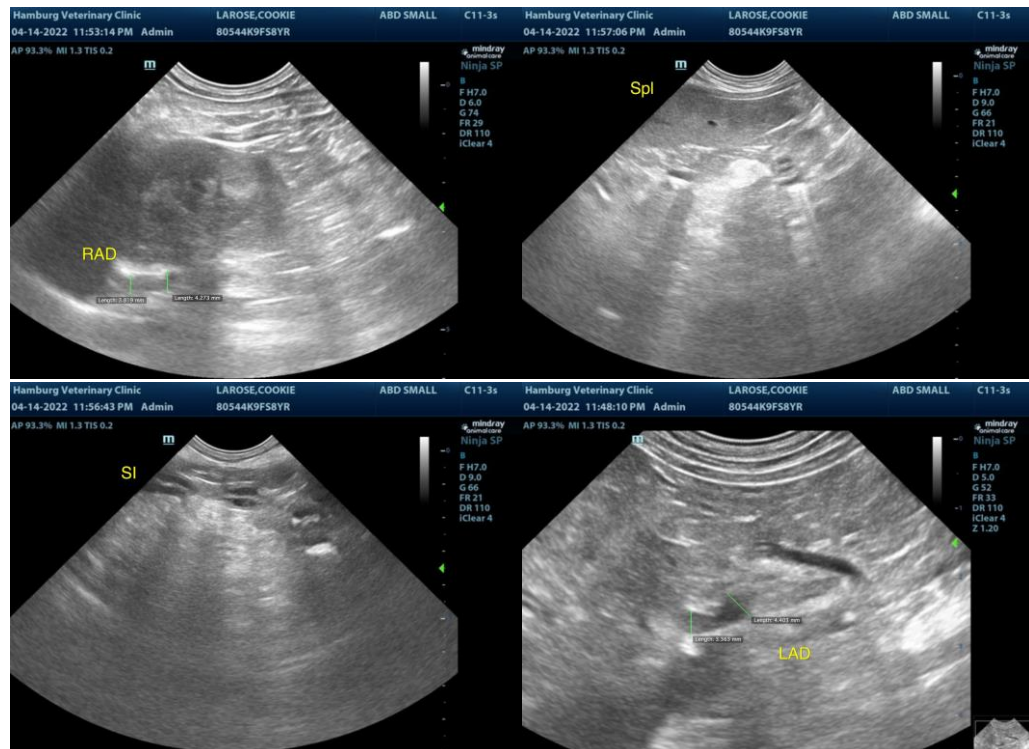
Spayed female

**AGE**

8 years

**WEIGHT**

14



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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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

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