



PATIENT PRESENTING CLINICAL SIGNS

Daisy LaHaie

History: 8 yr old FS Labrador Retriever presented for second opinion of elevated liver values/ annual exam. 3/22/21 ALT 297 and AST 94. Bile acids was performed and per other vet was wnl. 12/2/21 ALT 858, ALP 84. Started on Denamarin, metronidazole, amoxicillin. 1/31/22 ALT 951 and ALP 118.

SPECIES

Canine

Referred to Long Animal Hospital for an abdominal ultrasound - performed by general practitioner who reported liver, spleen, kidneys, bladder wnl. Did not comment on GI. No obvious masses seen. Liver biopsy performed - see attachment. Chronic mild lymphoplasmacytic and neutrophilic portal hepatitis with mild bile duct hyperplasia, fibrosis, diffuse hepatocellular vacuolar degeneration and cholestasis.

BREED

Labrador Retriever

Presented to Bethel 4/5/2021. Blood work showed: ALT 693, AST 98, ALP 186, ALB 2.3, Glob 2.4, total protein 4.7, Ca 8.8, Mg 1.4, rest wnl. Performed Bile acids - pre 18, post 37.2. GI panel pending. Also blind OD and unable to perform fundic exam. Rest of physical exam wnl

SEX

Spayed Female

Abnormal PE/Chem/CBC/UA Results: 8 yr old FS Labrador Retriever presented for second opinion of elevated liver values/ annual exam. 3/22/21 ALT 297 and AST 94. Bile acids was performed and per other vet was wnl. 12/2/21 ALT 858, ALP 84. Started on Denamarin, metronidazole, amoxicillin.

AGE

8 years

1/31/22 ALT 951 and ALP 118. Referred to Long Animal Hospital for an abdominal ultrasound - performed by general practitioner who reported liver, spleen, kidneys, bladder wnl. Did not comment on GI. No obvious masses seen. Liver biopsy performed - see attachment. Chronic mild lymphoplasmacytic and neutrophilic portal hepatitis with mild bile duct hyperplasia, fibrosis, diffuse hepatocellular vacuolar degeneration and cholestasis. Presented to Bethel 4/5/2021. Blood work showed: ALT 693, AST 98, ALP 186, ALB 2.3, Glob 2.4, total protein 4.7, Ca 8.8, Mg 1.4, rest wnl. Performed Bile acids - pre 18, post 37.2. GI panel pending.

WEIGHT

62 lbs

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

The **bladder** in this patient was mildly thickened with slight echogenic mural changes. No calculi or masses were noted. Slight micropolypoid changes were noted. This is a frequent finding in older animals and may be linked to a history of chronic urinary tract infection or active urinary tract infection.

Urinalysis would be recommended with culture if any evidence of inflammatory sediment is present.

The region of the trigone and visible pelvic urethra were normal.

IMAGING PERFORMED BY

Dr. Schanche

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for this age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right kidney measured 5.2 cm. The left kidney measured 4.5 cm.

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REFERRING VET

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Adrenal Glands

The left **adrenal gland** was visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.36 cm. The region of the right adrenal gland was uniform with no evidence of pathology.

INVOICE

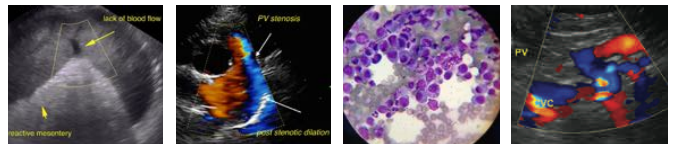
30002

DATE

4/28/22



PATIENT	Spleen
Daisy LaHaie	The spleen was mildly enlarged with a swollen cranial pole.
SPECIES	Liver
Canine	The liver is normal in size and contour with slight increased portal markings. The gallbladder and common bile duct were unremarkable.
BREED	Gastrointestinal
Labrador Retriever	The gastrointestinal tract revealed minor areas of increased muscularis thickening and increased submucosal echogenicity. This is suggestive for some level of chronic GI disease. There was some retention of ingesta noted in the stomach. There is no neoplastic criteria present. The lumen was empty.
SEX	Pancreas
Spayed Female	The base and limbs of the pancreas were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.
AGE	ULTRASONOGRAPHIC FINDINGS
8 years	Mild splenic enlargement, likely reactive with irregular swelling at the cranial pole. This is likely positional.
WEIGHT	Non-specific inflammatory hepatopathy pattern.
62 lbs	Mild, chronic GI changes. Likely chronic food intolerance or inflammatory bowel. Occult parasitism is possible.
INTERPRETED BY	INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS
Eric Lindquist, DMV DABVP, Cert. IVUSS	Assessment for occult Leptospirosis is indicated. There was no evidence of intrahepatic or extrahepatic shunting; however, portal hypoplasia/microvascular dysplasia is a possibility. Given the lymphocytic component in this patient antigen surveillance phenomenon/reactive hepatopathy is likely playing a role in this patient. From an empirical standpoint a hydrolyzed diet, Clavamox and Metronidazole could be considered over a 10-14 day period followed by reassessment of the liver values over the next 4-8 weeks. Sonographically the liver only appears to have minor changes. The biopsy appears to be more dramatic than the sonographic presentation in this particular case. Given the low albumin levels screening for Addison's would be indicated given the subnormal and non-visible right adrenal gland. Baseline cortisol is indicated if not already performed. If no significant proteinuria is present then protein losing enteropathy may be a comorbidity as the liver does not appear to have significant parenchymal disease to justify a drop in albumin owing to liver failure. Given the mild chronic GI changes this would support the potential theory of reactive hepatopathy/surveillance phenomenon driving inflammatory disease in the liver.
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PATIENT

Daisy LaHaie

SPECIES

Canine

BREED

Labrador Retriever

SEX

Spayed Female

AGE

8 years

WEIGHT

62 lbs

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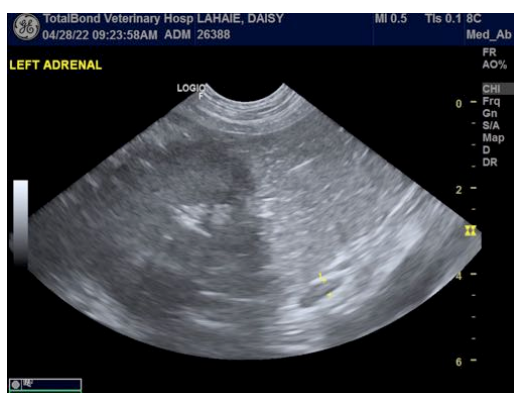
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PATIENT

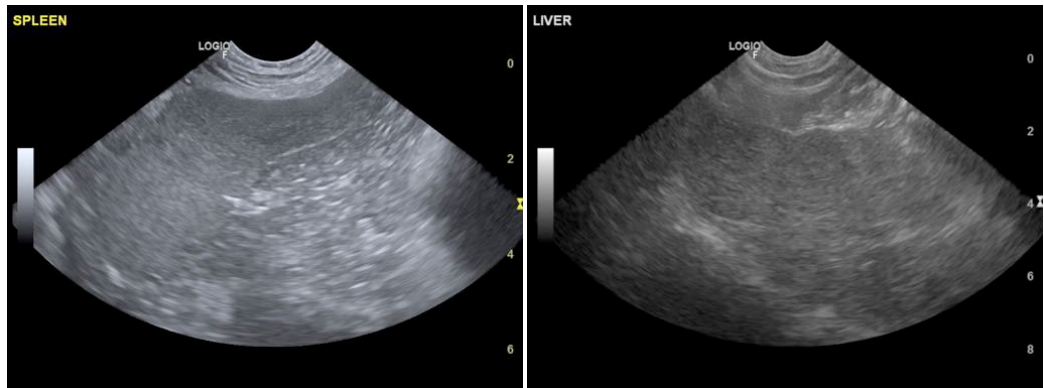
Daisy LaHaie

SPECIES

Canine

BREED

Labrador Retriever



SEX

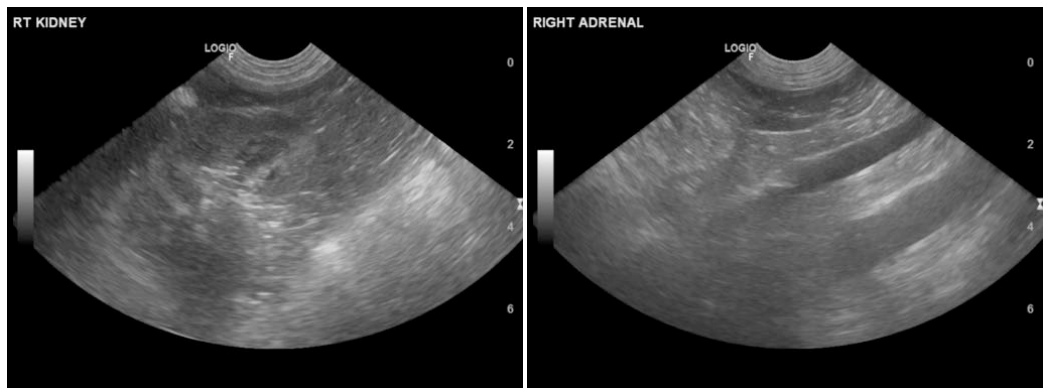
Spayed Female

AGE

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WEIGHT

62 lbs



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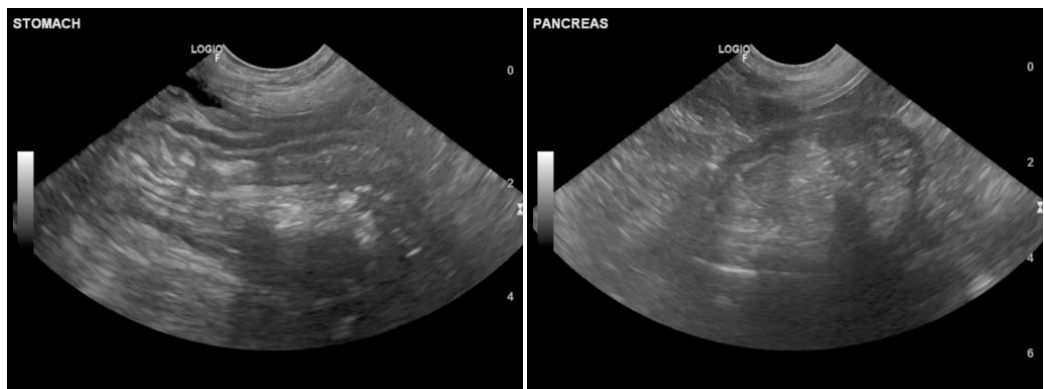
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
info@SonoPath.com