



PATIENT PRESENTING CLINICAL SIGNS

Bella Levander
 History: Recently treated for hot spot that healed. Elevated enzymes found with routine senior bloodwork.
 Abnormal PE/Chem/CBC/UA Results: ALKP>2000, ALT 361 (10-125; RBC 8.98 (5.65-8.87) was 9.05 Feb. 2020.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

BREED

Lab Mix

The **urinary bladder** wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone is normal.

SEX

Spayed Female

The **left kidney** is normal size (6.33 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.

AGE

10 years

The **right kidney** is normal size (7.29 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.

Adrenal Glands

The region of the **adrenal glands** is evaluated. No obvious pathology is observed.

WEIGHT

67 lbs

Spleen

The **spleen** is normal in size (2.31 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.

INTERPRETED BY

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

Liver

The **liver** is subjectively prominent in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and homogenous in appearance. No focal lesions are observed. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

IMAGING PERFORMED BY

Michelle Bartus

The **gall bladder** lumen is moderately distended. The wall is thin and smooth. A small to moderate amount of gravity dependent, echogenic debris and mineralized sand is observed within the lumen. The cystic and common bile ducts are normal/not seen.

HOSPITAL NAME

Valley Vet Svc, Inc.

Gastrointestinal

The **gastric lumen** is not distended. The gastric wall is normal in thickness with a normal layering pattern. 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. There is no evidence of an obstructive pattern.

REFERRING VET

Michelle Bartus

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.

INVOICE

11449

Free Abdomen

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

DATE

8.18.22

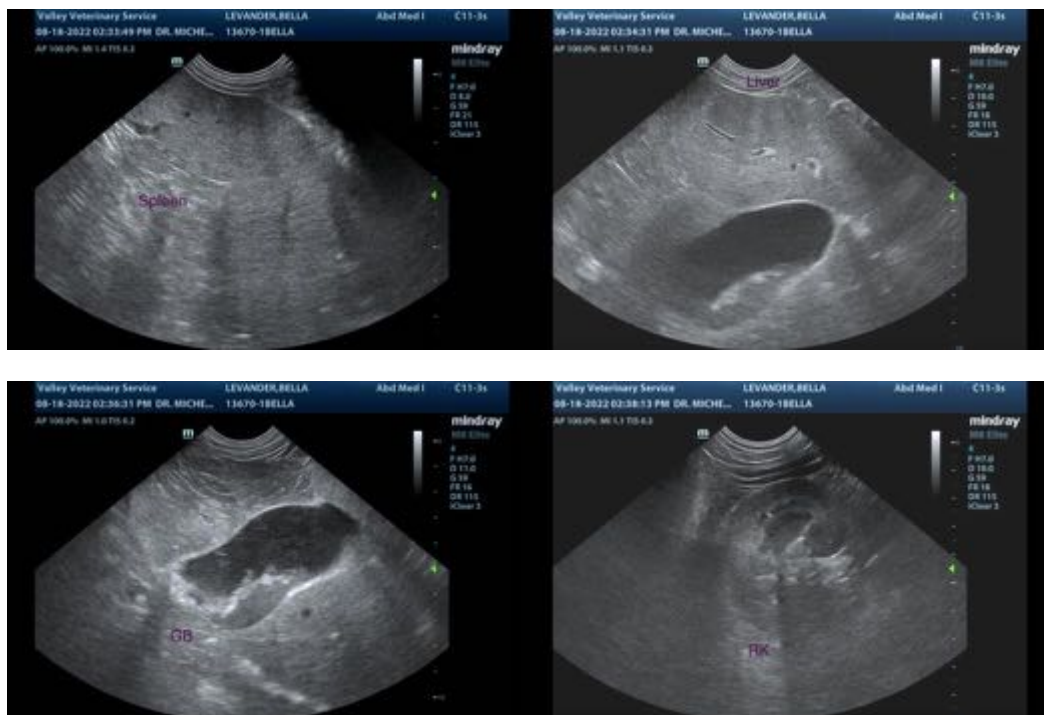
ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Gall bladder/sand - incidental
- Nonspecific diffuse hepatopathy. Differentials include vacuolar hepatopathy, regenerative nodular hyperplasia, inflammatory disease (i.e., chronic active hepatitis, bacterial cholangiohepatitis), hepatotoxicosis (i.e., copper), Leptospirosis, other hepatopathy.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Consider pre-and postprandial serum bile acids to assess hepatic function.
- Also consider Leptospirosis testing (i.e., blood and urine PCR, serology), particularly if the clinical suspicion for disease is high.
- Ultimately, hepatic tissue sampling (i.e., fine-needle aspirate or surgical biopsy) may be necessary to get a definitive diagnosis. Surgical biopsies are preferred in that they are more likely to be representative of global organ pathology. If pursued, aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for potential copper quantitation is recommended.
- In the meantime, consider initiation of a hepatic antioxidant (i.e., Denamarin) +/- empirical treatment for bacterial cholangiohepatitis. If no improvement is seen in the liver values within 5-7 days of initiating therapy, antibiotics should be discontinued, and additional testing or further monitoring should be considered.





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.

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