



PATIENT PRESENTING CLINICAL SIGNS

Lily Jarrett History: Lethargic and anorexic

SPECIES

Abnormal PE/Chem/CBC/UA Results: Mild elevation of ALT Bile acids Pre-prandial 70 post prandial 98

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

BREED

Urinary System

Poodle Golden X

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal thickness and tone. Anechoic urine was present in the lumen with no calculi 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. The left kidney measured 5.9 cm in length. The right kidney measured 5.4 cm in length.

AGE

2

Adrenal Glands

WEIGHT

22.3 kg

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.50 cm width at the caudal pole and 0.55 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 0.35 cm width at the caudal pole and 0.57 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

Dr. Belan

Liver

HOSPITAL NAME

Bowmont AH

The liver was overtly normal in size and contour with subjective normal hepatic vascular volume. Mildly reduced hepatic parenchyma echogenicity was noted, exhibiting mild coarse echotexture and concurrent mild increased prominence or portal vascular borders. The visualized portal vein appeared to exhibit normal volume with subjective normal cranial branching. Possible mild nonspecific increased cranial abdominal caudal vena cava volume present at the level of the diaphragm and hepatic vein junction.

REFERRING VET

Dr. Asemadahun

The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

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Gastrointestinal

DATE

1/4/23

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.



PATIENT

Lily Jarrett

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.

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

SPECIES

Canine

Pancreas

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.

BREED

Poodle Golden X

Free Abdomen

Intermittent, mildly prominent to hypoechoic yet homogenous cranial mesenteric to hepatic lymph nodes were present. An example measured 2.4 cm x 0.7 cm. The lymph nodes exhibited normal width to length ratio (<0.5). No evidence of peritoneal free fluid.

SEX

Spayed Female

ULTRASONOGRAPHIC FINDINGS

AGE

2

- Hepatopathy, exhibiting subjective normal to adequate hepatic vascular volume
- Sonographically unremarkable gallbladder/common bile duct
- Intermittent subjective benign or reactive cranial mesenteric/hepatic lymph nodes

WEIGHT

22.3 kg

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The hepatic presentation was nonspecific yet potentially indicative of nonspecific inflammatory hepatopathy, i.e., hepatitis (viral, bacterial, leptospirosis, toxin, etc.), copper hepatopathy or other. Alternative differential diagnosis may include potential for portal hypoplasia/microvascular dysplasia. A definitive extra- or intrahepatic portosystemic shunt was not obvious and considered less likely given the subjective normal hepatic vascular volume, yet in light of postprandial bile acid level cannot be definitively excluded. If clinical signs consistent with portosystemic shunt are present, further assessment may include gold standard CT with contrast. Correlation with pending hepatic cytology, primarily to assess or possibly identify inflammatory cell type is recommended. Potentially, core or surgical hepatic biopsy may be necessary for further definition.

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Pending additional diagnostics, some or all of the following protocol may be considered.

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Bowmont AH

Hepatic Support for Bile Acid Elevation +/- Hepatic Encephalopathy

Royal Canin Hepatic Support diet or Hills L/D, Metronidazole (7.5 mg/kg PO bid) over the next 14 days, **Lactulose** (Oral: 3.1-3.7 g/5 ml lactulose in a syrup base) long term to target 2-3 soft stools/day, with a **high-quality protein supplement** of minor amount of **yogurt** or **cheddar cheese**. Monitor bile acids, with attention paid to dropping albumin, BUN or cholesterol. SAME and nutraceuticals as needed. **Ursodiol** (10-15 mg/kg p.o. q24h) can be considered as hepatoprotectant and to enhance bile flow. **Zinc** serum level keep between 200—500 ug/dl. If deficient then Tx zinc acetate 1-3 mg/kg/day. Gastrointestinal protectants are recommended if the patient is anorexic.

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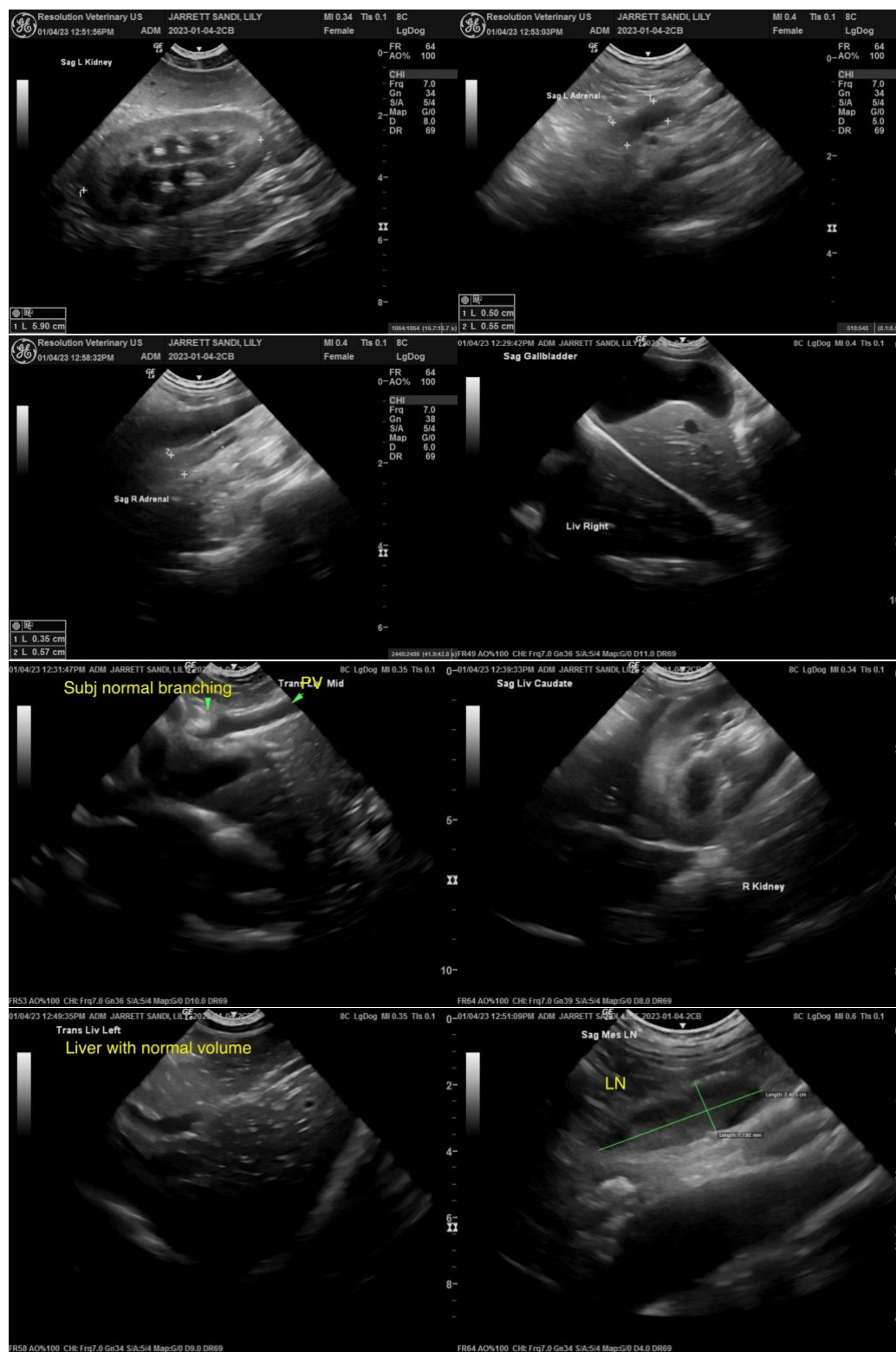
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



PATIENT

Lily Jarrett

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.

SPECIES

Canine

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info@SonoPath.com

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