



PATIENT

Chloe Elliot

SPECIES

Canine

BREED

Australian Shepherd
Mix

SEX

Intact Female

AGE

4 Years

WEIGHT

18.2 kg

INTERPRETED BY

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

**IMAGING
PERFORMED BY**

Jolee Stegemoller,
DVM

HOSPITAL NAME

North Idaho AH

REFERRING VET

Dawn Mehra, DVM

INVOICE

14839

DATE

4/22/22

PRESENTING CLINICAL SIGNS

History: Presented 4/21/22 for acute onset icterus, mild lethargy, pu/pd, hyporexia.
Abnormal PE/Chem/CBC/UA Results: Icterus in skin and MM. Chem - BUN 4, ALT 406, ALP 623, GGT 38, TBili 13.4, Amy 401 CBC - WNL UA - 1.004, pH 8, Bilirubinuria 6, Urobilinogen 8, quiet sediment

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

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

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. No evidence of renomegaly or renal calculi. The left kidney measured 6.5 cm in length. The right kidney measured 6.7 cm in length.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 1.5 cm in length x 0.45 cm width at the caudal pole.

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 1.9 cm in length x 0.49 cm width at the caudal pole.

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.

Liver

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was indistinctly visualized owing to potential contraction, possibly secondary to the presence of gastric ingesta. Sonographic assessment of the gallbladder walls was limited owing to this presentation. Potential for mildly thickened to echogenic gallbladder walls possible, although not definitive. No evidence of pericholecystic inflammation or effusion. The common bile duct was normal without overt evidence of posthepatic obstruction.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. Mild to moderate retained ingesta/chyme was present.

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.



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Pancreas

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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 omental masses, lymphadenopathy or peritoneal effusion was present.

BREED

Other

Australian Shepherd
Mix

No overt pathology in the area of the uterus or bilateral ovaries.

SEX

Intact Female

- Acute hepatopathy exhibiting subjective normal hepatic vascular volume
- Contracted potential mildly thickened gallbladder, sonographically unremarkable yet non-visualized common bile duct, without evidence of post hepatic obstruction
- Mild retained gastric ingesta/chyme
- Sonographically unremarkable bilateral kidneys and urinary bladder

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ULTRASONOGRAPHIC FINDINGS

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The overall appearance of the liver was nonspecific yet consistent with acute hepatopathy as opposed to chronic or end-stage hepatopathy. Acute hepatitis (viral, bacterial, leptospirosis, toxin), vacuolar hepatic changes, non-obstructive cholestasis possible with occult hepatic neoplasia considered a less likely differential diagnosis. Potential for some degree of cholecystitis, although not definitive.

Further assessment may include leptospirosis titers/PCR, if endemic to the area of potential exposure +/- screening hepatic FNA, using a 25-gauge needle and assuming normal clotting status, for cytology and potential identification of inflammatory cell type, if present. Correlation with clinical history or potential exposure to toxins, xylitol (if evidence of hypoglycemia), etc. Given the subjective normal hepatic vascular volume, as well as lack of concurrent issues, such as renomegaly or renocystic calculi, no overt evidence of an extrahepatic or intrahepatic shunt. Bile acids may be considered for further assessment.

Empirically, hospitalization with aggressive therapy for acute hepatopathy with as needed gastrointestinal support and monitoring of hepatic enzymes would be reasonable.

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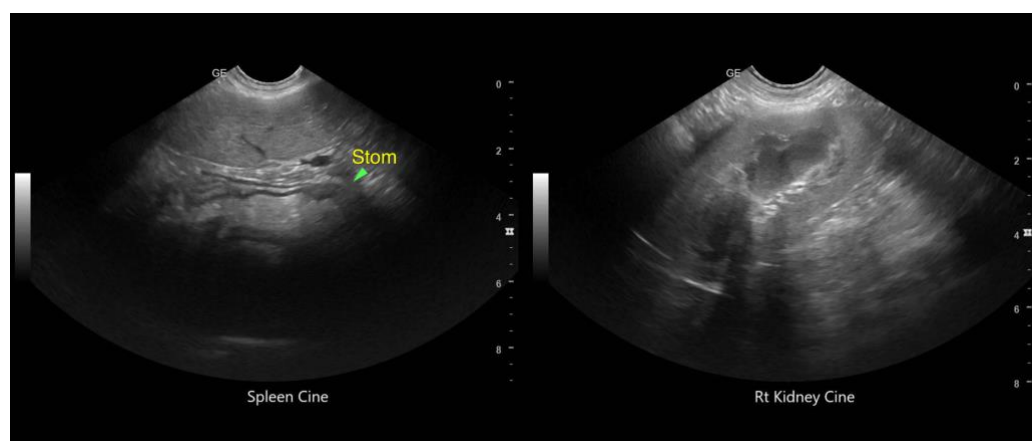
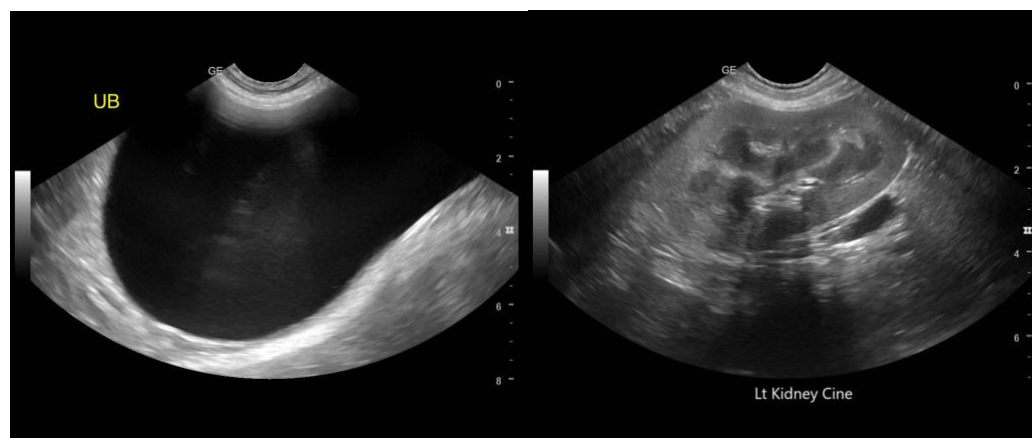
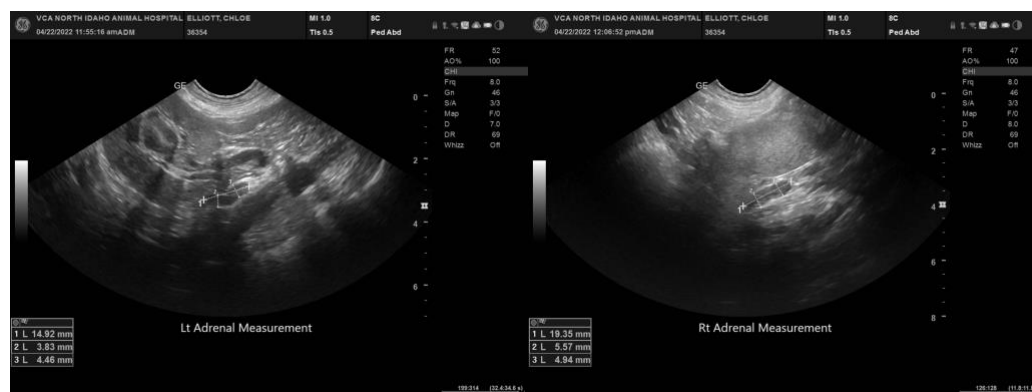
Dawn Mehra, DVM

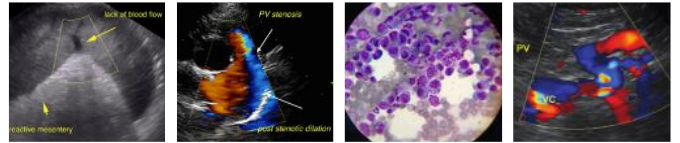
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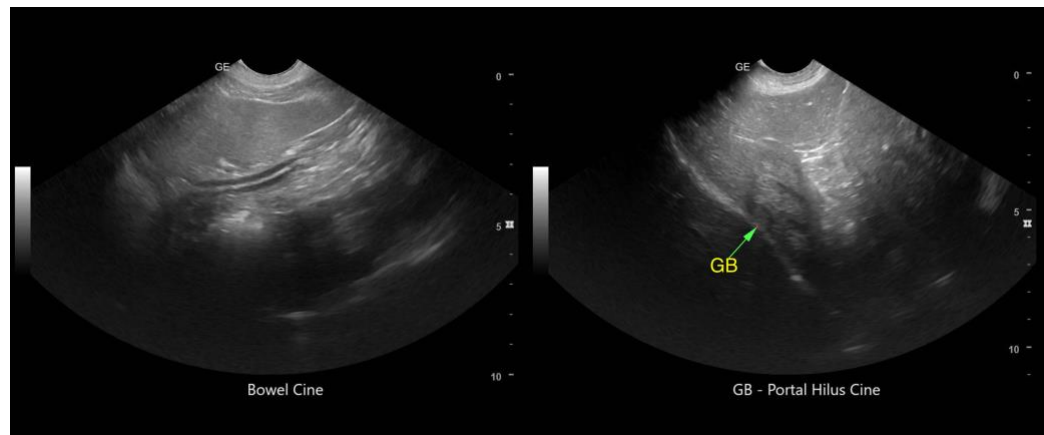
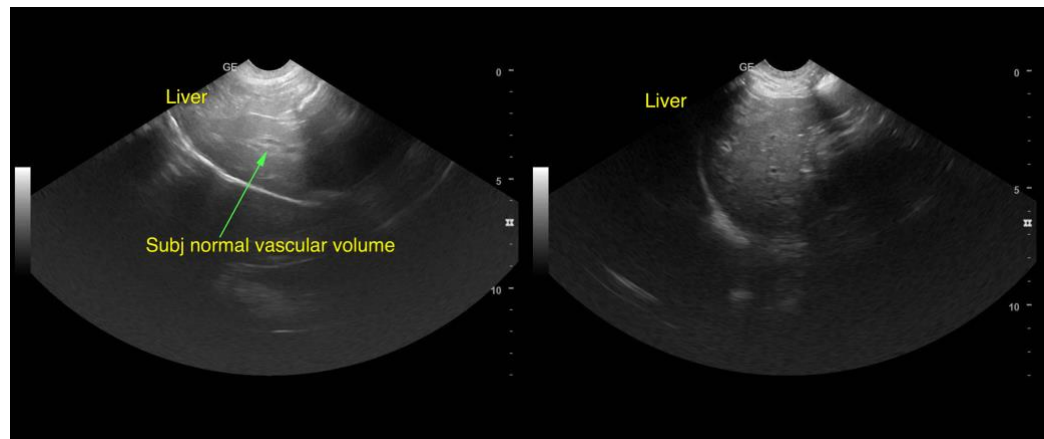
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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