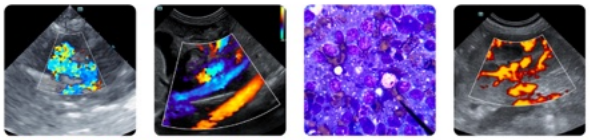


PATIENT

Jorgina Gross

SPECIES

Canine

BREED

Terrier Mix

SEX

Spayed female

AGE

4 years

WEIGHT

11 kg

INTERPRETED BY

Dr. Alicia Angosto Guerrero

IMAGING PERFORMED BY

Dr. Colborne

HOSPITAL NAME

Riverside Small AH

REFERRING VET

Dr. Colborne

INVOICE

71041

DATE

1/28/26

PRESENTING CLINICAL SIGNS

- Presented for routine examination and a dental was recommended. No health concerns. Elevated ALT seen on pre anesthetic blood work. O does feed high fat food regularly.
- Pre prandial bile acids 26.9umol/L, post prandial 15.7umol/L, ALT 490U/L, RBC 9.2, HCT 0.64, Hemoglobin 226g/L

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder lumen is normally distended. The urinary bladder wall is thin and smooth. The urine is anechoic. The bladder neck and proximal urethra have a normal appearance. No uroliths are identified, and there is no ultrasonographic evidence of inflammatory or neoplastic changes.

The left kidney is normal in shape and size, measuring 4.71×2.60 cm. Cortical thickness is 0.44 cm in the sagittal plane. The renal cortex is isoechoic relative to the hepatic parenchyma. The corticomedullary ratio is within normal limits, and corticomedullary definition is preserved. No pyelectasia, nephroliths, or hydronephrosis are identified. Color Doppler evaluation demonstrates a normal vascular pattern.

The right kidney is normal in shape and size, measuring 5.26×2.33 cm. Cortical thickness is 0.41 cm in the sagittal plane. The renal cortex is isoechoic relative to the hepatic parenchyma. The corticomedullary ratio is within normal limits, and corticomedullary definition is preserved. No pyelectasia, nephroliths, or hydronephrosis are identified. Color Doppler evaluation demonstrates a normal vascular pattern.

Adrenal Glands

The left adrenal gland measures 0.32 cm at the caudal pole. The cranial pole is incompletely visualized, precluding accurate measurement. The right adrenal gland is not visualized.

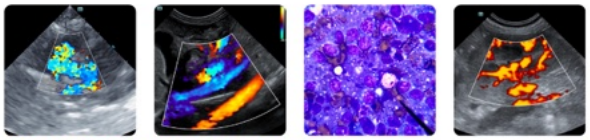
Spleen

Splenic thickness measures 1.39 cm. The splenic parenchyma has normal echogenicity and a fine, homogeneous echotexture, without focal parenchymal abnormalities. The splenic capsule is smooth and regular.

Liver

The liver is subjectively perceived as small relative to its position in relation to the stomach; however, in the absence of a coronal plane or orthogonal imaging, this assessment remains uncertain. Hepatic parenchyma is homogeneous and isoechoic relative to falciform fat, with a normal echotexture. No hepatic lymphadenopathy is identified.

The gallbladder lumen is normally distended. The gallbladder wall is thin. A moderate amount of biliary sludge is present. No dilation of the cystic duct or common bile duct is identified.



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Gastrointestinal

The stomach is empty and moderately folded, with preserved wall layering and a mural thickness of 1.79 mm. The pylorus could not be adequately measured.

Duodenal wall thickness measures 2.23 mm. Jejunal wall thickness ranges from 2.5–2.7 mm, with preserved wall layering. No ultrasonographic evidence of mural inflammation, ileus, or foreign material is identified.

The colonic wall measures 0.68 mm, with minimal fecal material present within the descending colon.

Pancreas

The evaluated portions of the pancreas do not show ultrasonographic evidence of overt inflammation.

Peritoneal Cavity

No abdominal effusion or ultrasonographic evidence of peritonitis is observed. Abdominal lymph nodes are not visualized, and the surrounding regions appear unremarkable. The iliac trifurcation appears normal.

ULTRASONOGRAPHIC FINDINGS

- Moderate biliary sludge within the gallbladder.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The clinicopathologic findings indicate a clinically significant hepatic disorder in a young dog, characterized by markedly increased ALT activity and abnormal bile acid concentrations. These abnormalities confirm hepatocellular dysfunction and/or altered portal blood flow and warrant further etiologic investigation.

The patient's age, abnormal bile acid concentrations, and a possibly subjectively small liver make a congenital extrahepatic portosystemic shunt a key differential consideration. Importantly, the absence of a clearly identified shunt on the current ultrasonographic examination does not exclude this possibility, as detection is highly operator-dependent and requires targeted evaluation of the portal vasculature and systemic venous connections.

Also compatible with both the biochemical abnormalities and the largely unremarkable ultrasonographic appearance is a primary hepatocellular disease, such as an inflammatory, metabolic, nutritional, or idiopathic hepatopathy. These conditions may produce marked hepatocellular enzyme elevations and functional impairment while maintaining relatively preserved hepatic architecture on ultrasound, particularly in early or non-cirrhotic stages. The reported high-fat diet may represent a contributing or exacerbating factor in this context.

Recommendations

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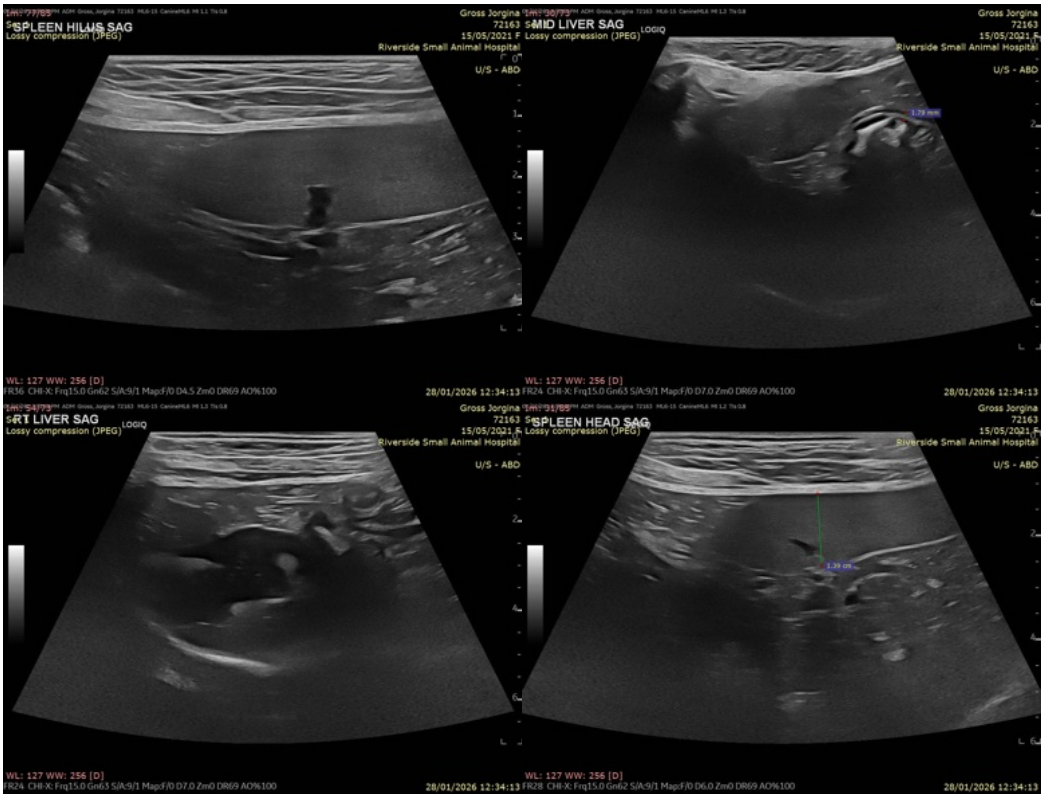
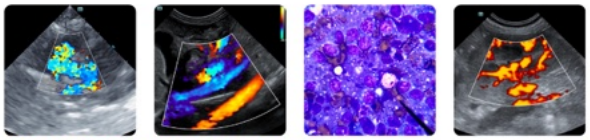
- Serial biochemical monitoring: Repeat liver enzymes and bile acid testing are recommended to assess progression, stability, or response to intervention. Persistent or worsening abnormalities would increase concern for an underlying chronic hepatopathy.
- Dietary assessment and modification: Review and adjustment of dietary fat intake are recommended, as nutritional factors may contribute to hepatocellular stress. Response to dietary modification should be monitored biochemically.
- Further characterization of hepatic function and portal circulation: Advanced vascular imaging, such as a targeted abdominal ultrasound with specific assessment of the portal vasculature, or contrast-enhanced CT angiography, is recommended to further evaluate for a congenital portosystemic shunt, if clinically prioritized.
- Histologic evaluation: liver biopsy should be reconsidered to allow definitive characterization of hepatocellular disease, recognizing that fine-needle aspiration may be insufficient for diffuse hepatic disorders.





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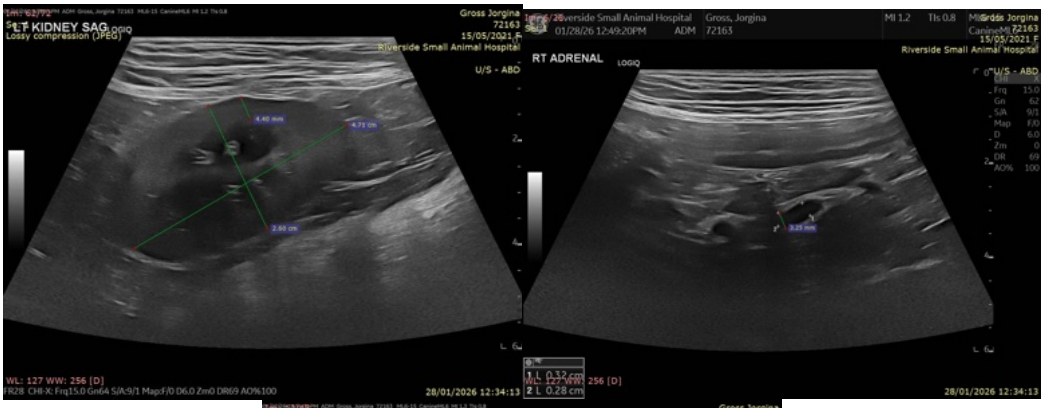

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Alicia Angosto Guerrero, DMV, PgDip, MSc.

MV Esp Ultrasound in Domestic and Wild Animals

info@SonoPath.com