



**PATIENT**

Squirt Vovillia

**SPECIES**

Canine

**BREED**

Chihuahua Mix

**SEX**

MN

**AGE**

9 years

**WEIGHT**

20 lbs.

**PRESENTING CLINICAL SIGNS**

Elevated ALT noted on wellness blood work. Patient is not clinical. Protein C submitted and results are below.

Abnormal PE/Chem/CBC/UA Results: ALT 532 (12-118IU/L) Protein C 101%. (75-135%)

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, and cystourethral junction 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 was noted.

The area of the aortic trifurcation was free of pathology.

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 4.2 cm in length. The right kidney measured 4.6 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 0.56 cm width at the caudal pole and 0.47 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 0.42 cm width at the caudal pole and 0.39 cm width at the cranial 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/ Gallbladder**

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 non-distended in size with minor particulate gallbladder debris. The cystic and common bile ducts were normal.

**Gastrointestinal**

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.

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.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Amy Mayhew LVT

**HOSPITAL NAME**

SVS Imaging  
Michigan

**REFERRING VET**

Family Pet Practice

**INVOICE**

12720

**DATE**

12/3/21



**PATIENT**

**Pancreas**

Squirt Vovillia

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 were evident.

**SPECIES**

Canine

**Free Abdomen**

**BREED**

Chihuahua Mix

No overt lymphadenopathy or peritoneal effusion was present.

**SEX**

**Primary Findings**

MN

- Hepatopathy - structurally insignificant inflammatory hepatopathy with potential for portal hypoplasia / microvascular dysplasia

**AGE**

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

9 years

No evidence of intrahepatic or extrahepatic shunting in conjunction with the Protein C level. FNA of the liver could be considered with potential assessment of inflammatory cell type if present. A hepatic core or surgical biopsy is likely necessary for a definitive diagnosis. However, if the patient is nonclinical, conservative hepatic support including Denamarin and Ursodiol may be considered. Fasting and post prandial bile acids may be considered to assess hepatic functionality. If clinically indicated, liver diet +/- Metronidazole and lactulose may prove beneficial with continued monitoring of ALT levels.

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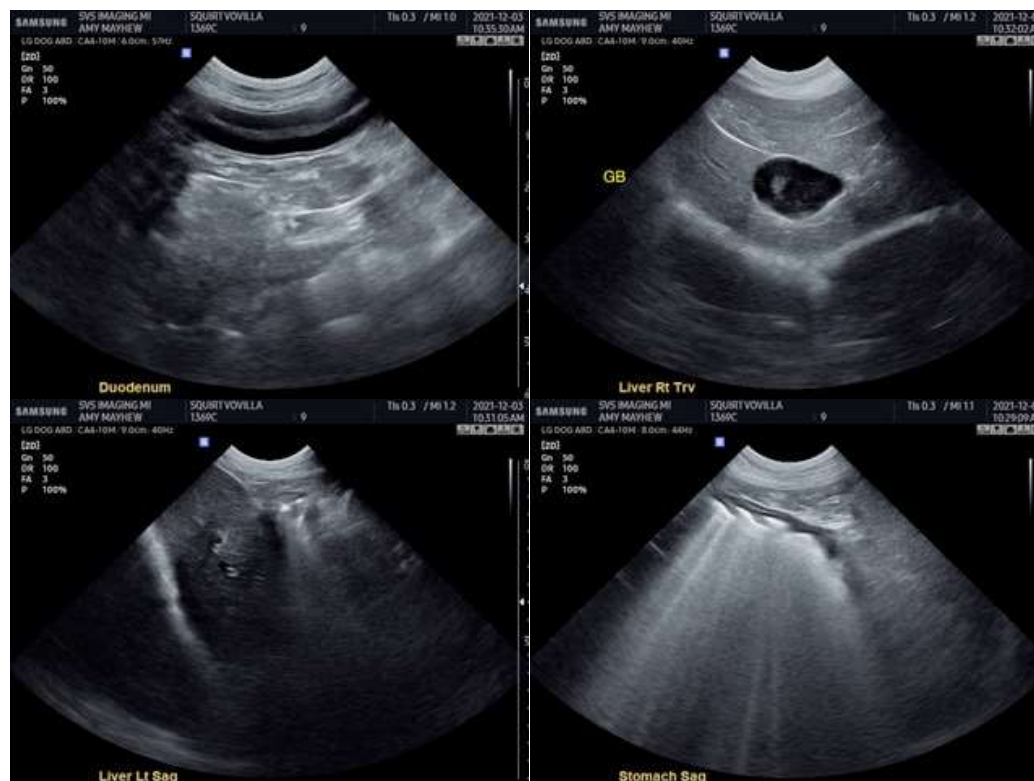
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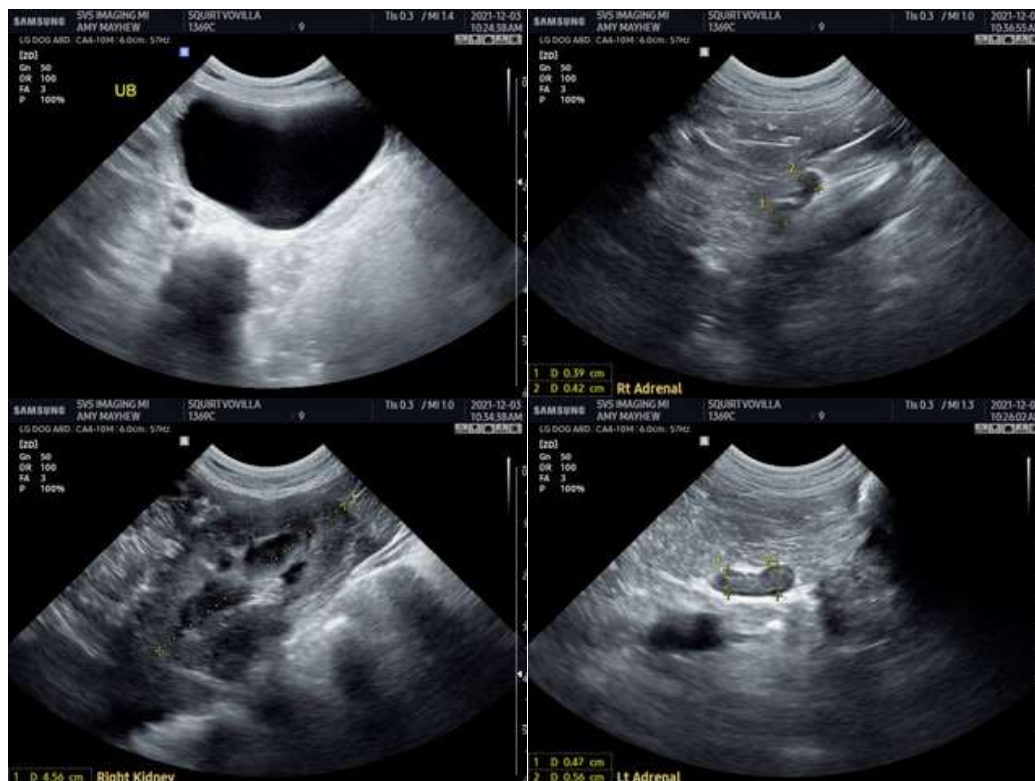
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)  
info@SonoPath.com