



**PATIENT**

Sprocket Kohler

**SPECIES**

Canine

**BREED**

Beagle Mix

**SEX**

F/S

**AGE**

14 years

**WEIGHT**

18 lbs.

**PRESENTING CLINICAL SIGNS**

Elevated liver values, possible abdominal mass in cranial abdomen. No current meds.  
Abnormal PE/Chem/CBC/UA Results: Alt 305, Ast 95, Alkp 1769, GGT 16

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. 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 was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Minor medullary mineral was noted in both kidneys. The left kidney measured 4.4 cm in length. The right kidney measured 4.9 cm in length.

**INTERPRETED BY**

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

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 1.9 cm length x 0.53 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 1.6 cm length x 0.56 cm width at the caudal pole.

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**Spleen**

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. 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. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.

**HOSPITAL NAME**

Shohola Veterinary  
Hospital

**REFERRING VET**

Dr. DeMeo

**Liver/ Gallbladder**

The liver was moderate to markedly enlarged in size with capsule asymmetry. Diffuse severe cystic parenchyma was present exhibiting mixed echogenicity along with diffuse severe primary small to complicated cystic changes throughout the liver parenchyma. No overt evidence of discernable uniform hepatic parenchyma was visualized. The ventral caudal liver appeared to extend past the level of the gastric axis into the potential mid-abdomen. The gallbladder was non-distended in size containing primarily anechoic content with mild, nonorganized gallbladder debris. No overt evidence of post-hepatic obstruction was noted.

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**Gastrointestinal**

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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.

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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.

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

**Pancreas**

**AGE**

14 years

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.

**Free Abdomen**

**WEIGHT**

18 lbs.

Mild volume anechoic peritoneal free fluid was present. No omental masses or lymphadenopathy was noted.

**ULTRASONOGRAPHIC FINDINGS**

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DVM, DABVP  
(Canine and Feline)

- Hepatomegaly with severe diffuse cystic appearing parenchyma
- Mild chronic renal changes exhibiting minor medullary mineral
- Sonographically unremarkable spleen - no evidence of neoplastic criteria
- Mild volume peritoneal free fluid

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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The perceived abdominal mass within the cranial abdomen correlates with the degree of hepatomegaly. The severely cystic hepatic changes may indicate diffuse to complicated parenchymal cysts, diffuse to coalescing cystic biliary adenomas, neoplasia, and less likely hepatic parenchymal necrosis.

**REFERRING VET**

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Screening FNA cytology of the liver, assuming normal clotting status, could be considered for cytology +/- C/S. However, cytology may be unrewarding given the diffuse cystic hepatic changes. Bile acid testing is suggested to assess hepatic functionality with little discernable uniform hepatic parenchyma visible.

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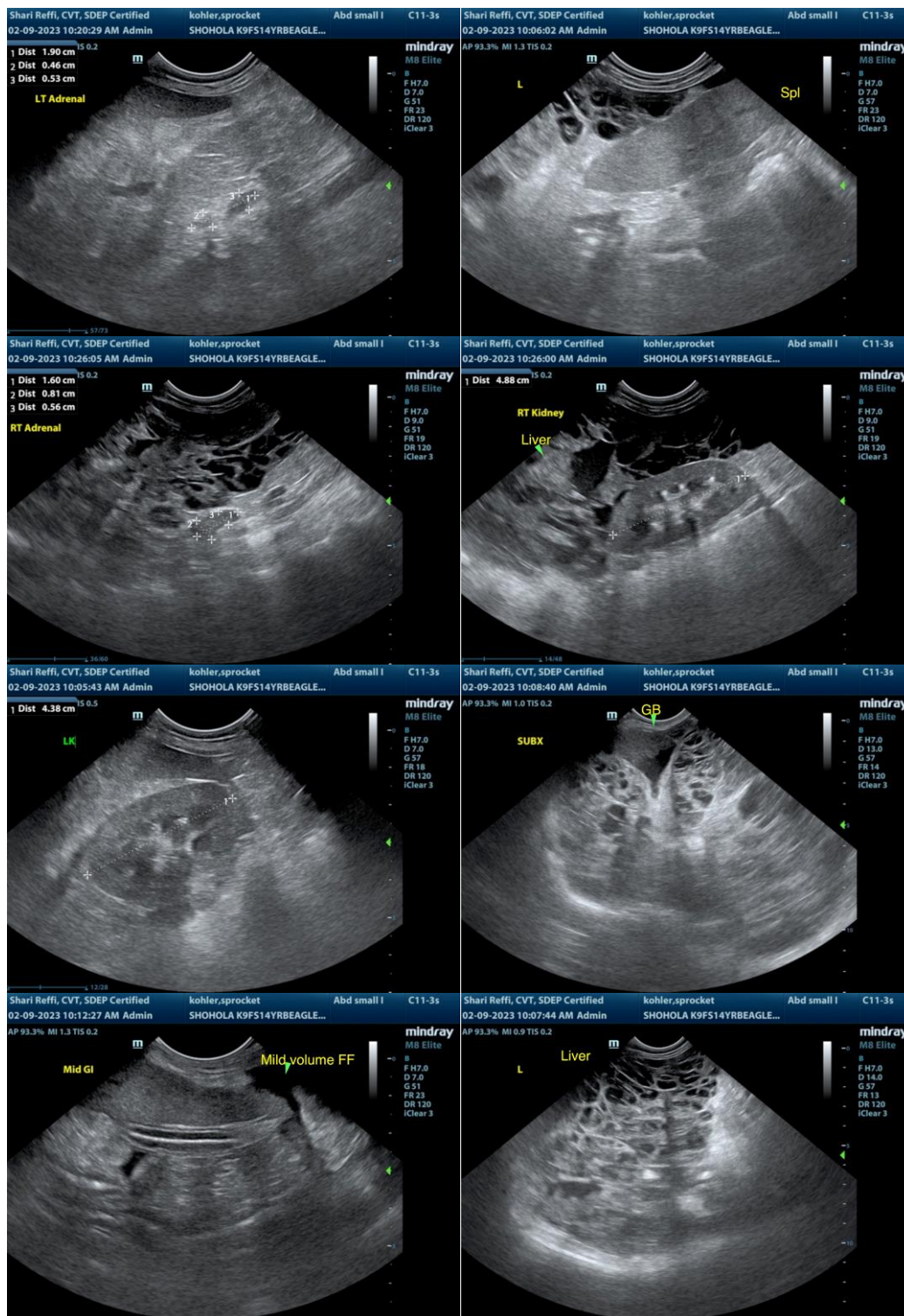
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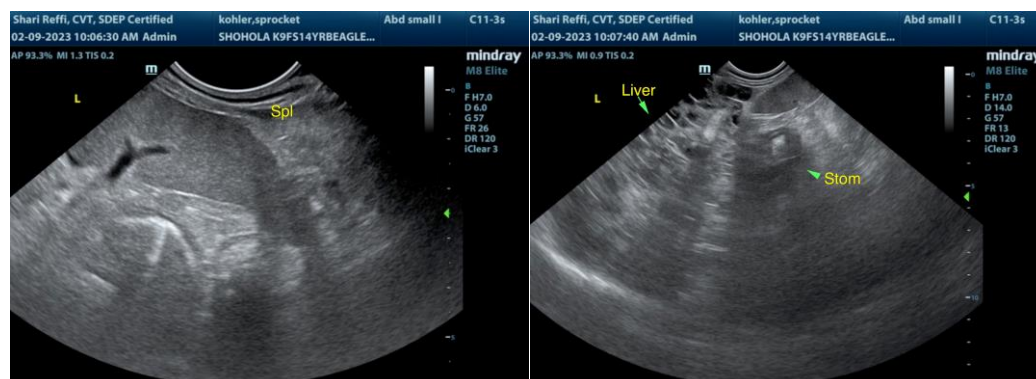
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
info@SonoPath.com