



**PATIENT PRESENTING CLINICAL SIGNS**

Ricky Caramella • severely enlarged liver on radiographs (?) diarrhea and vomiting, lethargy.

**SPECIES** Abnormal PE/Chem/CBC/UA Results: Lym 1.02, mono 3.09, eos 0.03, plt 602, gluc 541, GGT 97, TBil 7, chol 490, alt and Alp didn't run

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED** *Urinary System*

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

**SEX**

M

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 4.9 cm in length. The right kidney measured 5.0 cm in length.

**AGE**

6yr

The area of the aortic trifurcation was free of pathology.

**WEIGHT**

17lb

The bilateral testicles were sonographically normal.

The prostate was mildly enlarged in size with intact, symmetrical capsule contour. The margins of the gland were intact and able to be differentiated from the surrounding tissue. The prostatic parenchyma was mildly echogenic to heteroechoic without parenchymal mineralization. The prostate measured 2.0 cm in diameter.

**INTERPRETED BY**

R. McKenzie Daniel,  
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(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 0.60 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 0.44 cm width at the caudal pole.

**IMAGING PERFORMED BY**

Rebecca Hamilton

**Spleen**

**HOSPITAL NAME**

Smithfield Animal Hospital

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.

**REFERRING VET**

Dr Boe

**Liver/Gallbladder**

Significant, generalized hepatomegaly exhibiting symmetrical rounded capsule contour. Heterogeneous, mildly hyperechoic parenchyma exhibiting coarse echotexture. Normal vascular volume. No visualized masses or nodules were present. The hepatic and portal vasculature were

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normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

**Gastrointestinal**

**SPECIES**

Canine

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 mechanical/metabolic ileus, obstruction or foreign material.

**BREED**

Chi Mix

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

**Pancreas**

**SEX**

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The left / right pancreas was prominent in size with capsule asymmetry and heterogeneous to mildly hypoechoic parenchyma.

**Free Abdomen**

**AGE**

6yr

No overt lymphadenopathy or peritoneal effusion was present.

Mild increased omental echogenicity was present.

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

17lb

**Primary**

- Significant non-congested hepatomegaly exhibiting non-homogenous mildly hyperechoic parenchyma- vacuolar /cholestatic hepatopathy, inflammatory/ immune mediated /infectious disease, hyperplasia, lipidosis, occult neoplasia, all potentials
- Normal gallbladder
- Chronic / chronic active pancreatitis pattern with remodeling
- Sonographically normal empty gastrointestinal tract with semi-formed fecal matter in colon
- Normal bilateral adrenal glands

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Assuming normal clotting status and using a 25g needle, a hepatic FNA for screening cytology is warranted for further assessment. A GI panel to include PLI/TLI/Cobalamin/Folate is recommended.

No evidence of post-hepatic or gastrointestinal obstruction. A leptospirosis titer/PCR may be considered if clinically indicated or if potential exposure/endemic to the area.

Hepatogastrointestinal support, consideration for empirical cholangiohepatitis therapy with clinical and sonographic monitoring if evidence of progressive hepatopathy or non-responsive gastrointestinal signs is recommended. A fructosamine level is recommended if concern for diabetes.

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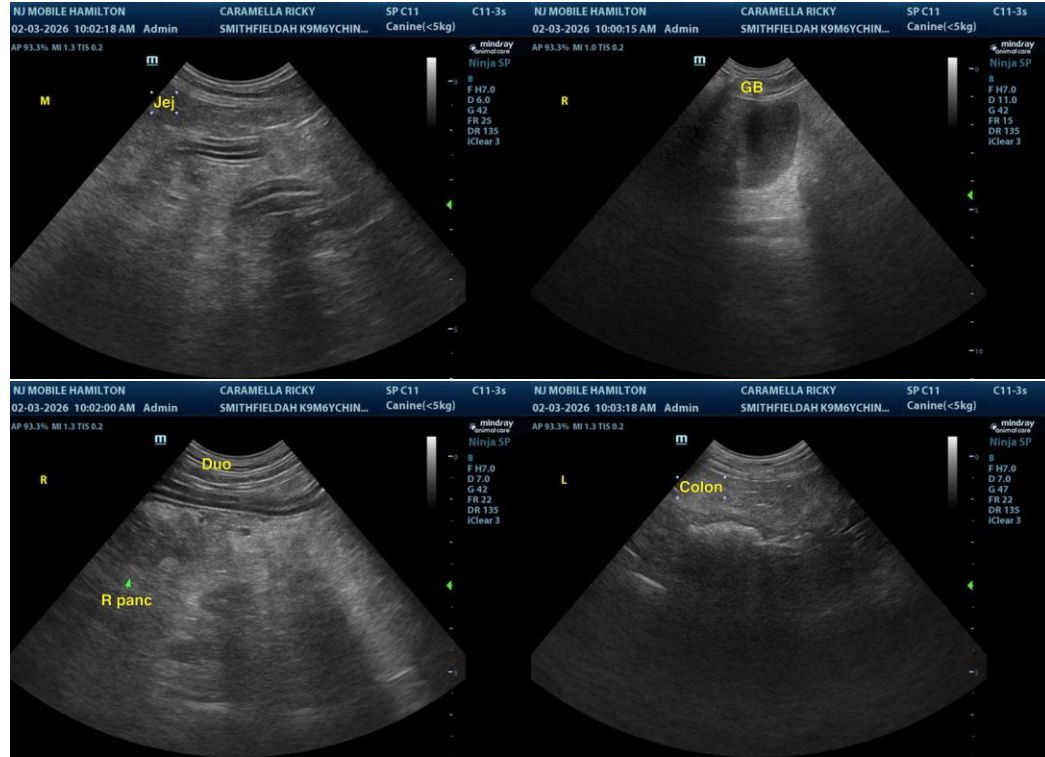
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**AGE**

6yr

**WEIGHT**

17lb



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.

**INTERPRETED BY**

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 DVM, DABVP  
 (Canine and Feline)

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.

**IMAGING PERFORMED BY**

Rebecca Hamilton

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