



**PATIENT PRESENTING CLINICAL SIGNS**

Charlie Martinell History of Kennel Cough - July, elevated liver values on pre dental bloodwork.  
Medication: Doxycycline

**SPECIES**  
ALP 432, ALT 418

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED** *Urinary System*

Pitbull 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, 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**  
FS The area of the aortic trifurcation was free of pathology.

**AGE**  
2015 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 5.5 cm in length. The right kidney measured 5.6 cm in length.

**WEIGHT**  
57.7

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 2.4 cm length x 0.68 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 3.2 cm length x 0.82 cm width at the caudal pole.

**INTERPRETED BY**

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

**Spleen**

The spleen exhibited subjective borderline enlargement with 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.

**IMAGING**

**PERFORMED BY**  
Rebekah Jakum, CVT  
ARDMS/RVT

**HOSPITAL NAME**

Brodheads ville VC

**Liver/ Gallbladder**

**REFERRING VET**

Dr. Goldstein

The liver exhibited subjective mild decreased hepatic size with subjective adequate vascular volume. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild parenchymal remodeling. The hepatic and portal vasculature were 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.

**INVOICE**

14816

**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.

**DATE**

8/15/23



**PATIENT**

Charlie Martinell

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.

**SPECIES**

**Pancreas**

Canine

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.

**BREED**

Pitbull

**Free Abdomen**

No overt lymphadenopathy or peritoneal effusion was present.

**SEX**

FS

**ULTRASONOGRAPHIC FINDINGS**

**AGE**

2015

- Nonspecific hepatopathy exhibiting subjective borderline / mild subnormal liver size
- Sonographically unremarkable gallbladder
- Borderline splenomegaly - sonographically benign

**WEIGHT**

57.7

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The overall liver was nonspecific yet sonographically suggestive of benign hepatopathy criteria. Considerations may include nonspecific hepatitis (viral, bacterial, Leptospirosis, etc.) vacuolar hepatopathy, toxic hepatopathy i.e., copper, or other hepatopathy. There was no obvious evidence of an intrahepatic or extrahepatic macroscopic shunt. Bile acid testing may be considered if evidence of hepatic dysfunction. Hepatic core surgical biopsy is likely required for a definitive diagnosis.

Temporary discontinuation of Doxycycline may be considered if hepatic enzyme elevations occurred after Doxycycline initiation. Hepatosupportive medications including Denamarin and Ursodiol may prove beneficial.

**INTERPRETED BY**

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DVM, DABVP  
(Canine and Feline)

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Canine

**BREED**

Pitbull

**SEX**

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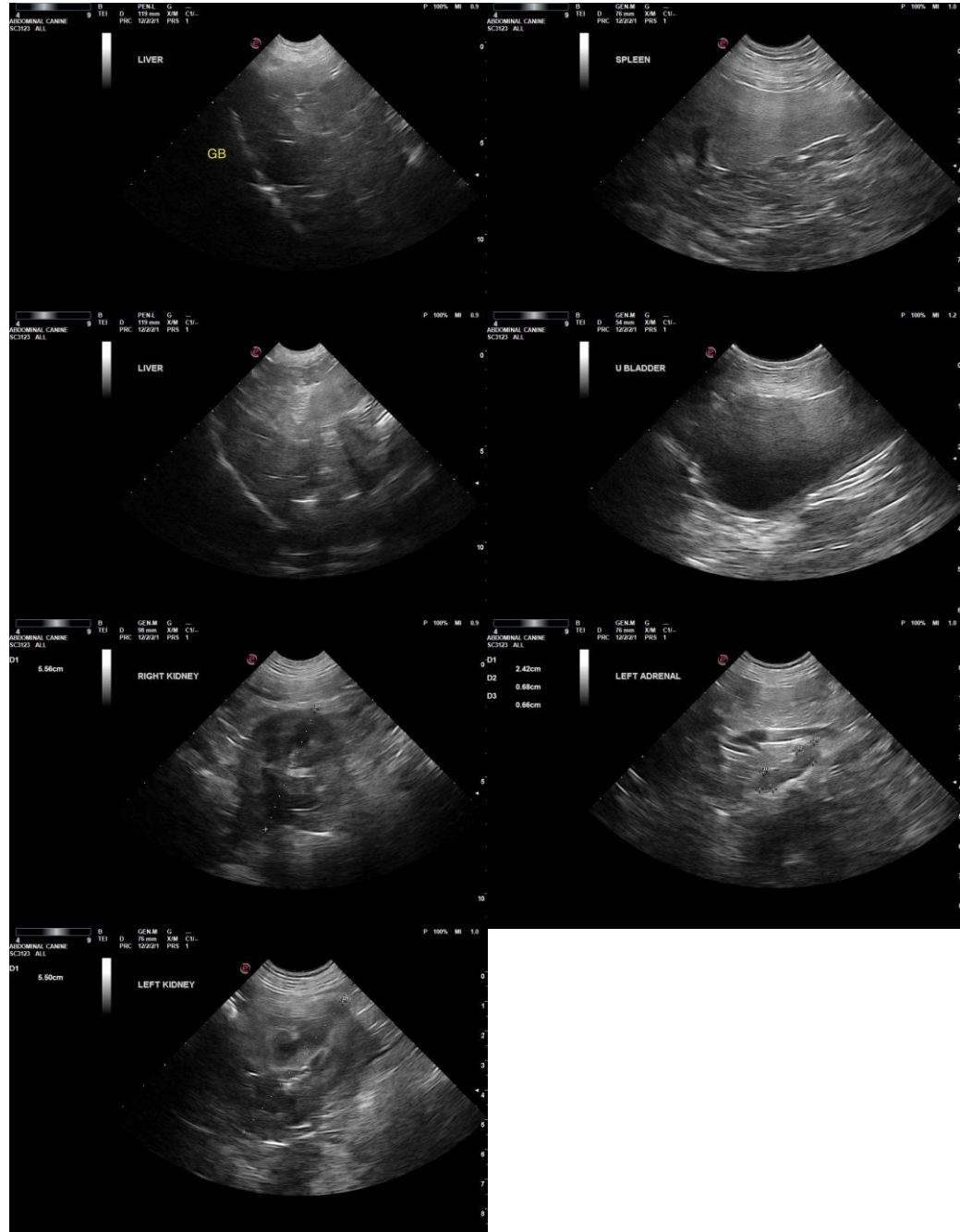
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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](mailto:info@sonopath.com)