



**PATIENT PRESENTING CLINICAL SIGNS**

Marley Matthews

Presented on November 23rd for weight loss, lethargy and polydipsia for the last few months. Owner also noted thinning of haircoat and generalized flaking/crusting with no pruritus. No V/D/C/S. Vaccines not UTD since 2018. No flea/tick prevention. Owner had removed a tick the evening prior which was confirmed to be an Ixodes tick with history of multiple previous tick bites. Physical exam revealed a BCS of 7/9. No previous weight to compare degree of weight loss. Thinning of haircoat on dorsum as well as generalized flaking/crusting. T: 39.5. No lameness or joint swelling. LNs WNL. Thoracic and abdominal palpation unremarkable. Moderate perivulvar yellow discharge. 4DX wellness panel revealed Lyme positive, significant hypoalbuminemia, hyperglobulinemia and 1+ proteinuria. UPCr indicated borderline proteinuria (0.5). Marley then presented to local emergency clinic for marked lameness, lethargy, polyarthropathy and lymphadenopathy. Prescribed doxycycline and gabapentin.

**SPECIES**

Canine

**BREED**

Golden Retriever

**SEX**

FS

**AGE**

5yr

Abnormal PE/Chem/CBC/UA Results: Please see attached bloodwork. Will email a copy of Labwork. Lyme positive (Lyme Quant C6 Antibody: 307 (0-30) UPCr: 0.5 (0.0-0.2) Hypoalbuminemia: 18 (27-39) Mild non regenerative anemia Moderate neutrophilia Moderate elevation in total protein characterized by moderate hyperglobulinemia Decreased albumin:globulin ratio Mild hypocholesterolemia Decreased thyroid level

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**WEIGHT**

35.8kg

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 4 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 were noted.

**INTERPRETED BY**

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

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 6.4 cm in length. The right kidney measured 7.1 cm in length.

**IMAGING PERFORMED BY**

Crystal Hill

The area of the aortic trifurcation was free of pathology.

**HOSPITAL NAME**

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The area of the iliac trifurcation was free of pathology including no evidence of medial, iliac or sublumbar lymphadenopathy.

**REFERRING VET**

Dr. Harkness

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.57 cm width at the caudal pole and 1.9 cm length. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.79 cm width at the caudal pole and 2.3 cm length.

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**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.

**DATE**

11/28/2022



**PATIENT** *Liver*

Marley Matthews

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 thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

**SPECIES**

Canine

**Gastrointestinal**

**BREED**

Golden Retriever

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.

**SEX**

FS

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

**Pancreas**

**AGE**

5yr

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 was evident.

**Free Abdomen**

**WEIGHT**

35.8kg

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

- Sonographically unremarkable abdomen

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Overall, there is no overt evidence of significant abdominal visceral pathology as a definitive cause of the patient's clinical signs. No evidence of nephritis criteria or intra-abdominal lymphadenopathy was noted.

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Empirical therapy for Lyme disease with monitoring of UPC level and systemic BP is recommended. For an additional charge, internal medicine consult can be utilized through SonoPath.com. You can select the internal medicine drop down at <http://spa.sonopath.com/>.

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One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. <https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services>

**REFERRING VET**

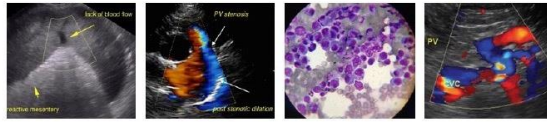
Dr. Harkness

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**PATIENT**

Marley Matthews

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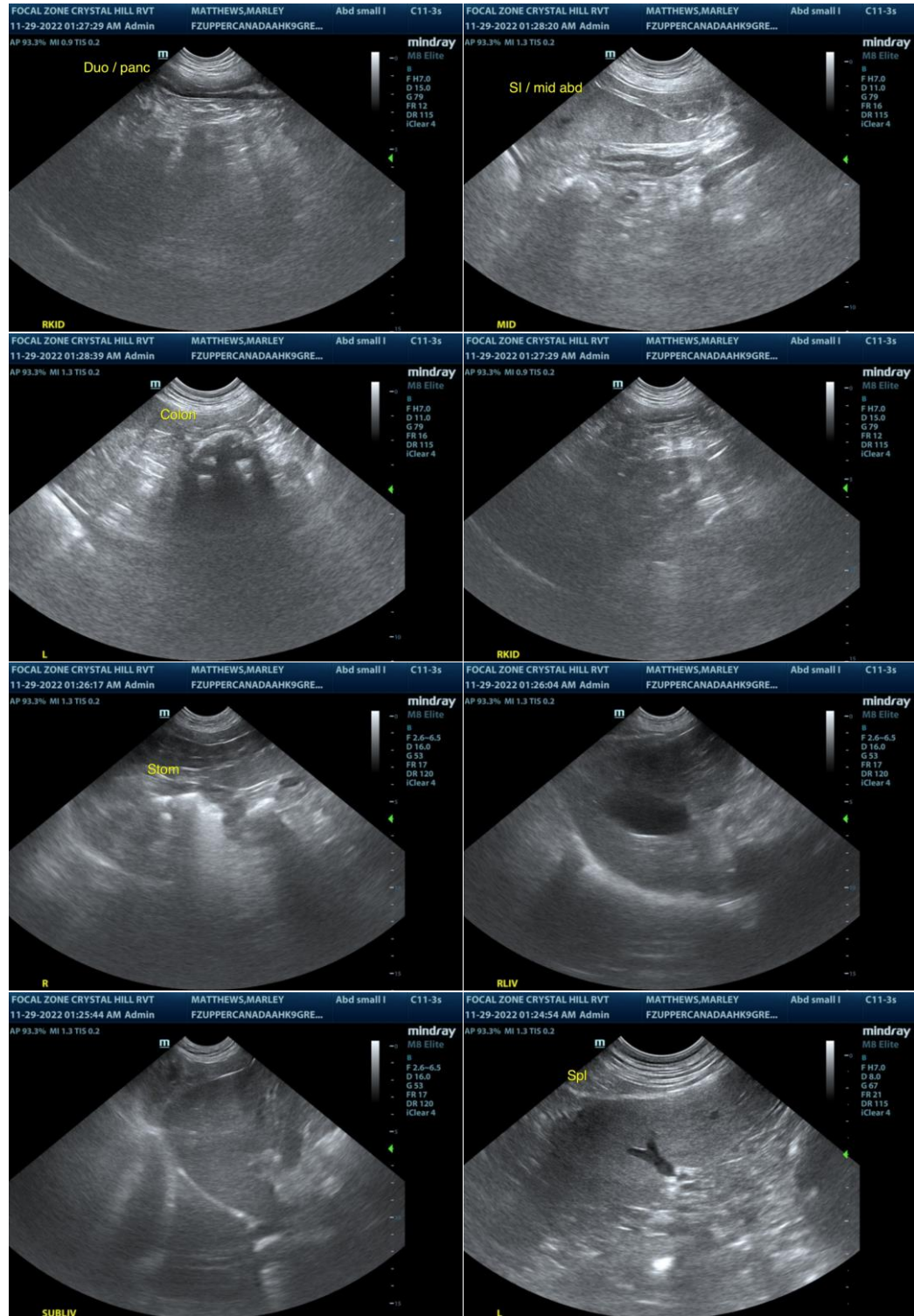
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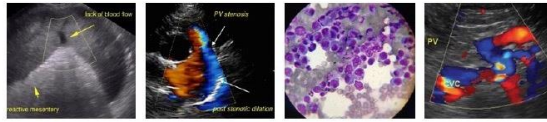
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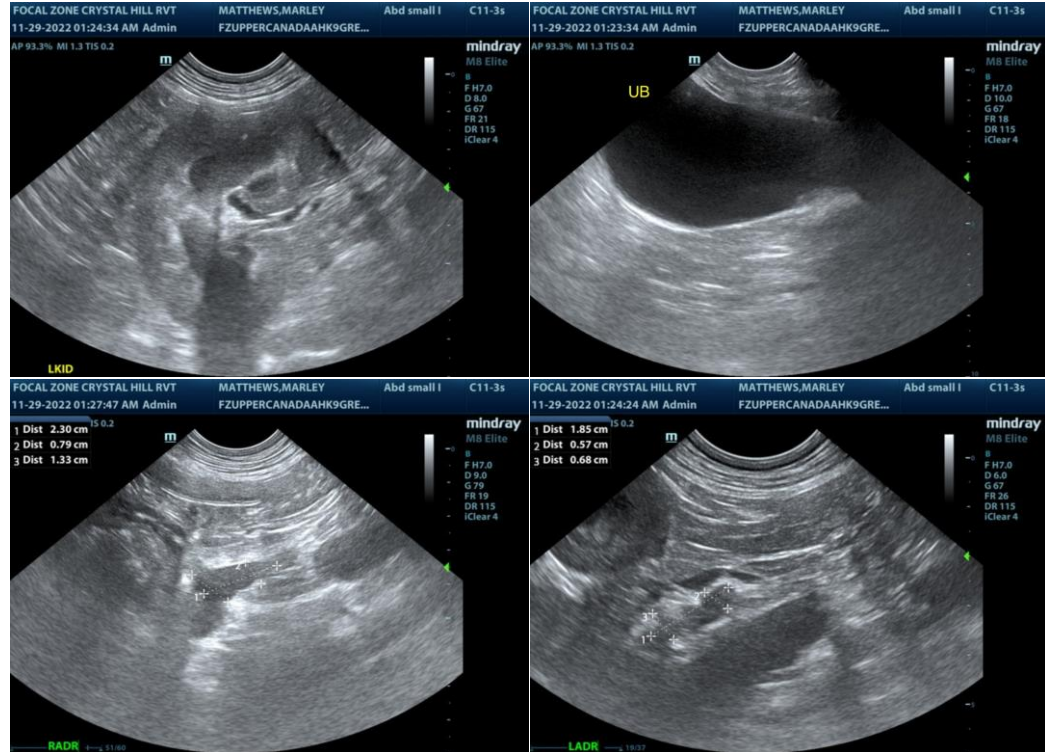
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**AGE**

5yr

**WEIGHT**

35.8kg



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

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