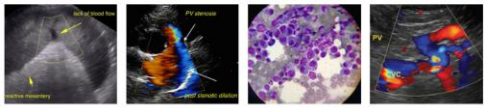

PATIENT

Ella Merriam

SPECIES

Canine

BREED

Black Lab

SEX

FS

AGE

14yr

WEIGHT

77lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Pamela Harrigan, RDCS

HOSPITAL NAME

Falmouth Animal Hospital

REFERRING VET

Foster Palmer, DVM

INVOICE

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DATE

05/01/2023

PRESENTING CLINICAL SIGNS

Hematuria. Urine Protein 3+, Blood/Hemoglobin 3+. Red Blood cell count >100. 2+ (3-5) HPF. On Yunnan Baiao - Chinese herbal supplement. ALT 172.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder was normal in size and tone. Variable to mildly prominent urinary bladder wall was noted, no bladder tumors. The ventral urinary bladder wall measured 0.33 cm in width. The trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with moderate particulate sediment. The sediment may indicate cellular debris / protein, crystalline debris, lipid, or mucus. No mineral or calculi noted.

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 moderate loss of corticomedullary symmetry and definition expected for the age of the patient. Moderate bilateral pyelectasia was present. The left kidney measured 7.3 cm in length. The right kidney measured 7.2 cm in length.

The area of the aortic trifurcation was free of pathology.

The area of the uterine remnant appeared normal and free of pathology.

Adrenal Glands

The bilateral adrenal glands were normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 0.82 cm width in the cranial pole and 0.62 cm width in the caudal pole. The right adrenal gland measured 0.93 cm width in the cranial pole and 0.71 cm width in the caudal pole.

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 medial capsule exhibited suspected areas of minor fibrosis. 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.

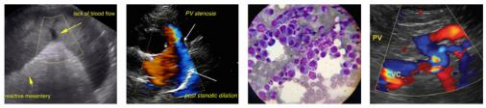
Liver/Gallbladder

The liver presented enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with primarily anechoic luminal content and minor echogenic non-organized 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.



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

Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

Free Abdomen

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

ULTRASONOGRAPHIC FINDINGS

- Moderate urinary bladder sediment, possible mild cystitis.
- Bilateral moderate chronic renal changes with minor pyelectasia.
- Non-homogenous/non-uniform liver-low grade to chronic inflammatory hepatopathy, vacuolar hepatopathy, hyperplasia, hematopoiesis, fibrosis, infiltrative neoplasia (less likely).
- Gallbladder debris (non-mucocele).
- Mild pancreatic remodeling.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No sonographic evidence of upper/lower urinary tract neoplastic criteria or calculi. Cystocentesis for UA +/- C/S if evidence of inflammatory cells is recommended. The minor bilateral pyelectasia may be owing to chronic renal changes, potential pelvic scarring possibly owing to previous calculi passage or IV fluid therapy (if applicable). Low grade chronic pyelonephritis is possible yet thought less likely. Idiopathic renal hematuria could be a potential. Although there is no evidence of urinary bladder/proximal urethra tumors, a screening BRAF assay could be considered.

Assuming normal clotting status a hepatic FNA for screening cytology could be considered for further assessment. Hepatosupportive medications such as Denamarin and Ursodiol may prove beneficial.

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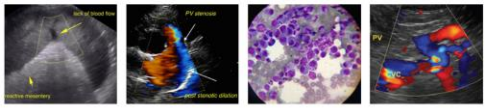

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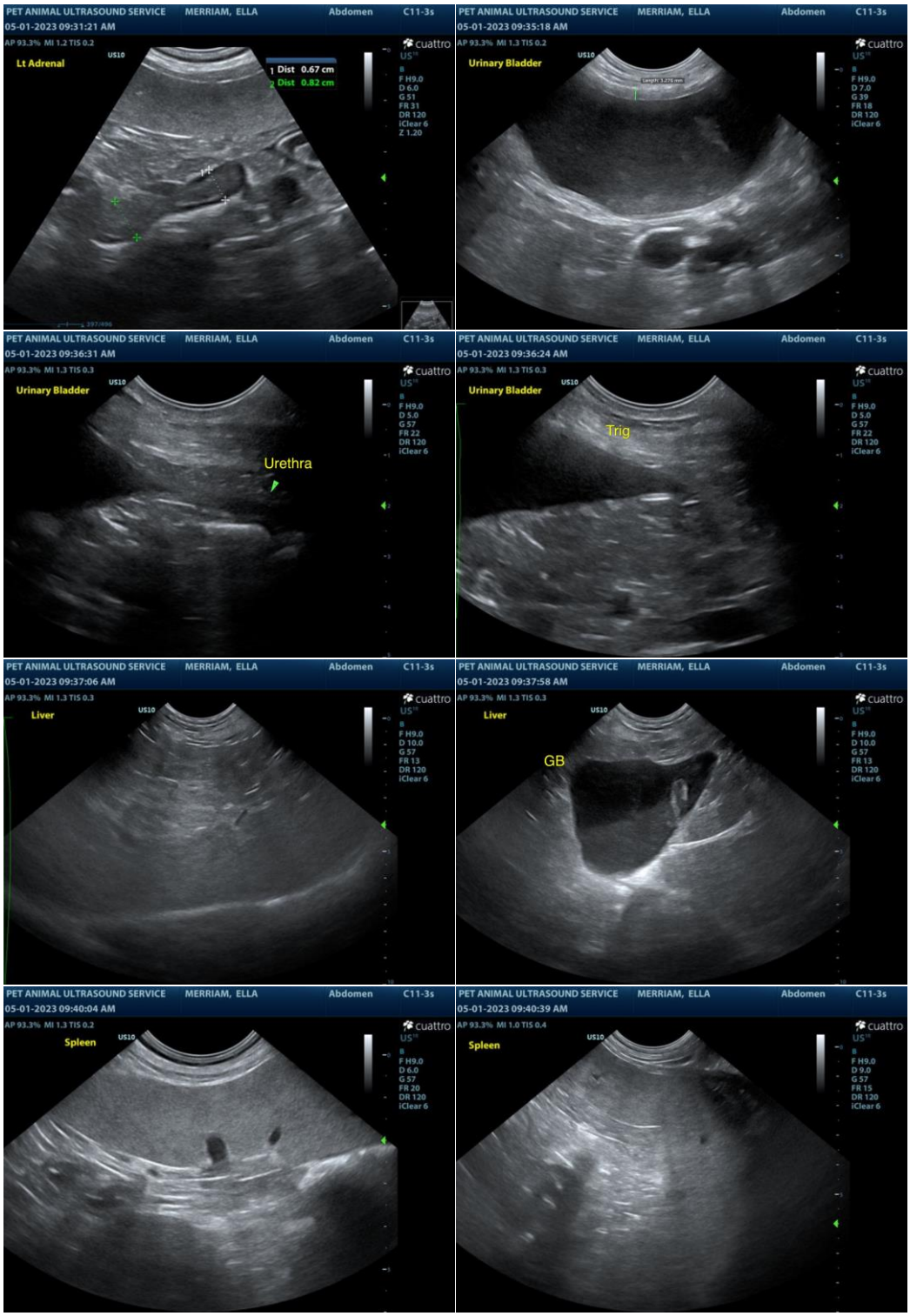

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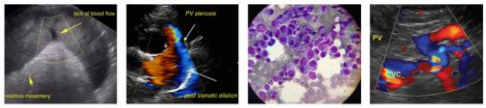

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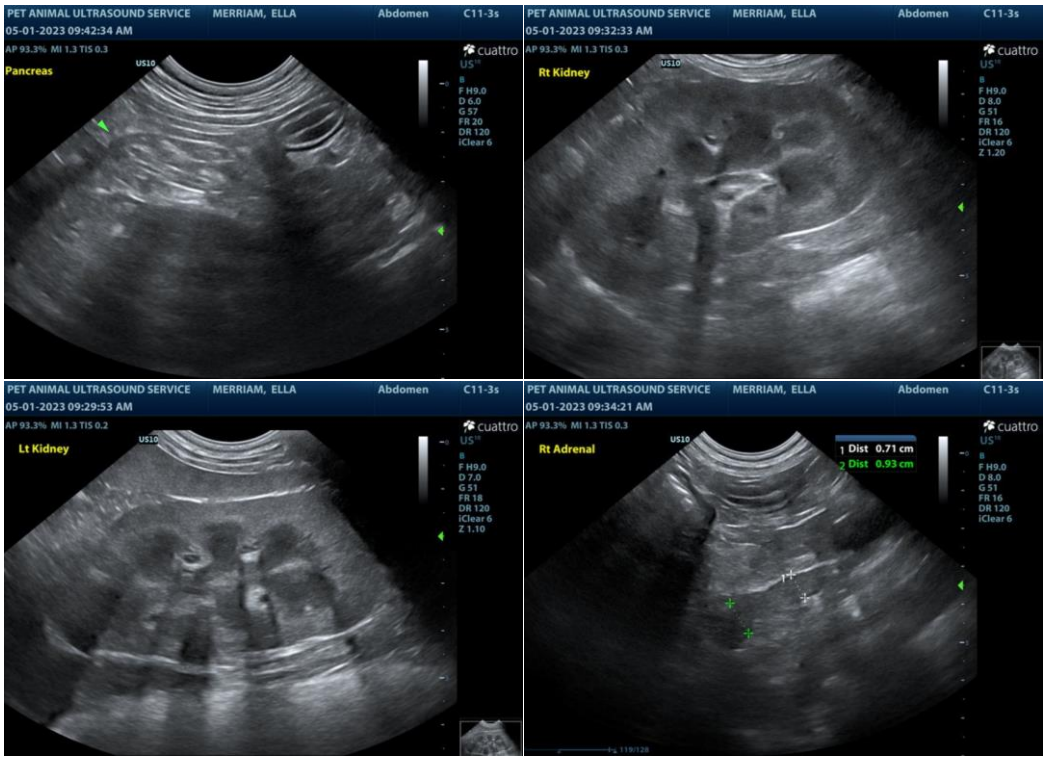

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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