



**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT** Remmy Elliot  
**SPECIES** Patient is overweight and has a history of increased ALP - most recent is 1547, owner would like to examine the liver with ultrasound before traveling across the country with pet in RV. Patient was treated for Lyme nephritis at Tufts in 2016. Chronic ear infections. On Denamarin 100mg SID. Sedated with Dexdomitor, Ketamine, Torbugesic.  
**BREED** Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED** *Urinary System*

**BREED** Shiba Mix  
 The urinary bladder, 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 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.

**SEX**

**SEX** MN  
 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 to moderate loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. A caudomedial left kidney thinly walled cortical cyst was present measuring 0.82 cm in diameter. The left kidney measured 6.0 cm in length. The right kidney measured 5.8 cm in length.

**AGE**

11yr

**WEIGHT**

56.4lb

The area of the aortic trifurcation was free of pathology.  
 The area of the residual prostate appeared normal and free of pathology.

**Adrenal Glands**

**INTERPRETED BY**

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

The bilateral adrenal glands were borderline prominent in size based on caudal pole width and body weight. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 0.64 cm width in the cranial pole and 0.63 cm width in the caudal pole. The right adrenal gland measured 0.64 cm width in the cranial pole and 0.81 cm width in the caudal pole.

**IMAGING PERFORMED BY**

Pamela Harrigan, RDCS

**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.

**HOSPITAL NAME**

Barnstable AH

**Liver/Gallbladder**

**REFERRING VET**

Dr. Ware

The liver presented mildly 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. The cystic and common bile ducts were normal.

**INVOICE**

13497ag

**Gastrointestinal**

**DATE**

04/17/2023

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.



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

**BREED** *Free Abdomen*

Shiba Mix  
 No omental masses or peritoneal effusion was present.

**SEX**

MN

Focal to intermittent mildly prominent to enlarged medial iliac lymph nodes were present. The lymph nodes were essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5). An example of a lymph node measured 1.7 cm x 0.42 cm. This finding is considered incidental and is not consistent with inflammatory or neoplastic criteria.

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**ULTRASONOGRAPHIC FINDINGS**

- Benign hepatopathy-sonographically consistent with vacuolar hepatopathy pattern.
- Normal gallbladder.
- Mild pancreatic remodeling.
- Mild to moderate chronic renal changes with left kidney cortical cyst.
- Borderline to mild prominent mild non-homogenous adrenal glands-nonspecific.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**INTERPRETED BY**

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

The bilateral prominent adrenal glands are non-specific given the lack of reported clinical signs which may suggest Cushing's syndrome i.e., PU/PD, polyphagia etc. A full adrenal workup is suggested if these clinical signs are noted or if clinical suspicion for adrenal hyperfunction. No evidence of adrenal neoplasia.

**IMAGING PERFORMED BY**

Pamela Harrigan, RDCS

Continued hepatosupportive medications would be reasonable. Given the history of chronic ear infection and in light of the ALP elevation, a novel protein or hydrolyzed diet trial may prove beneficial. Monitoring of UPC level given history of Lyme nephritis is suggested if evidence of proteinuria.

**HOSPITAL NAME**

Barnstable AH

No evidence of intra-abdominal neoplastic criteria.

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**PATIENT**

Remy Elliot

**SPECIES**

Canine

**BREED**

Shiba Mix

**SEX**

MN

**AGE**

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**WEIGHT**

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**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

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**HOSPITAL NAME**

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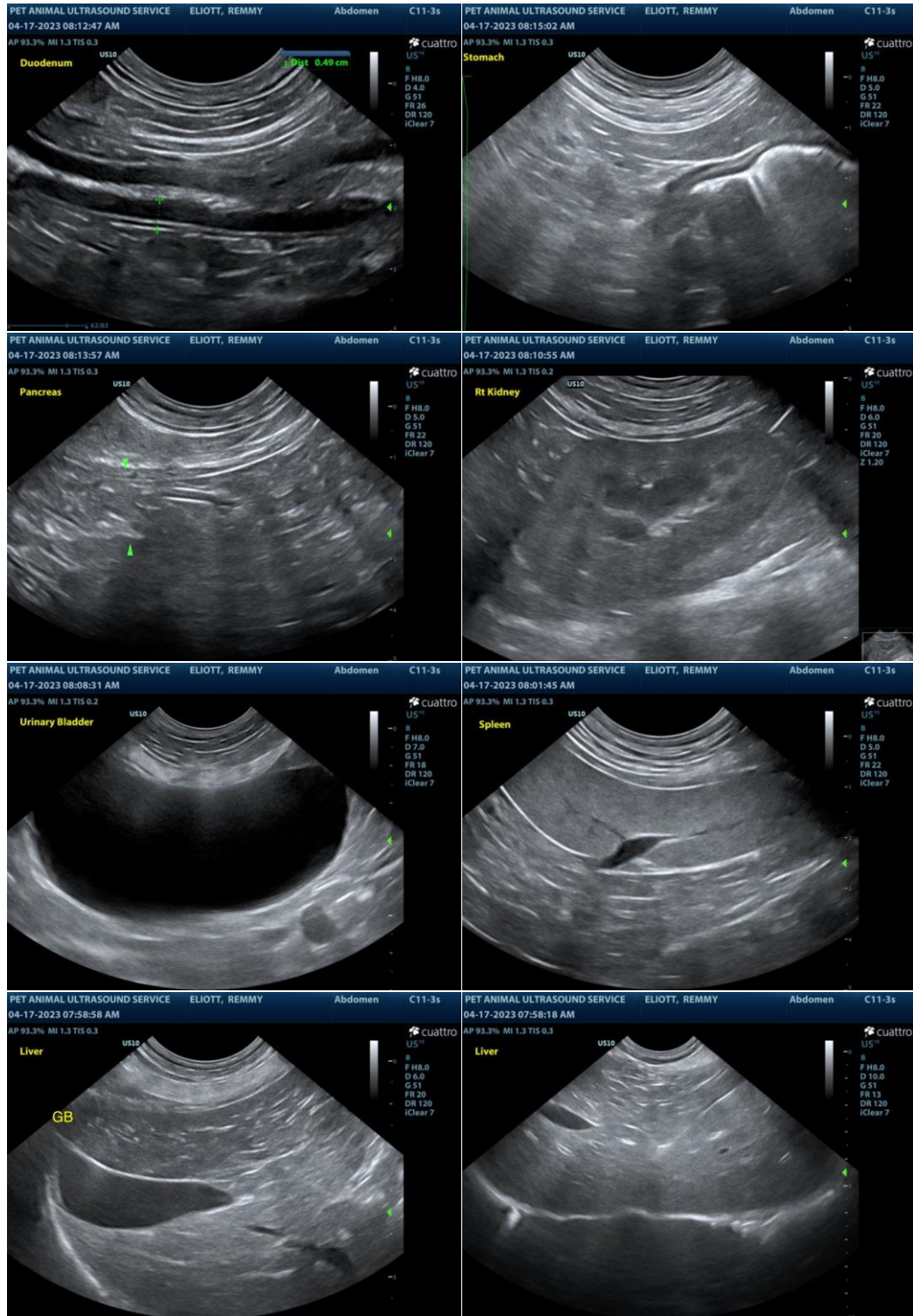
Dr. Ware

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**PATIENT**  
 Remmy Elliott

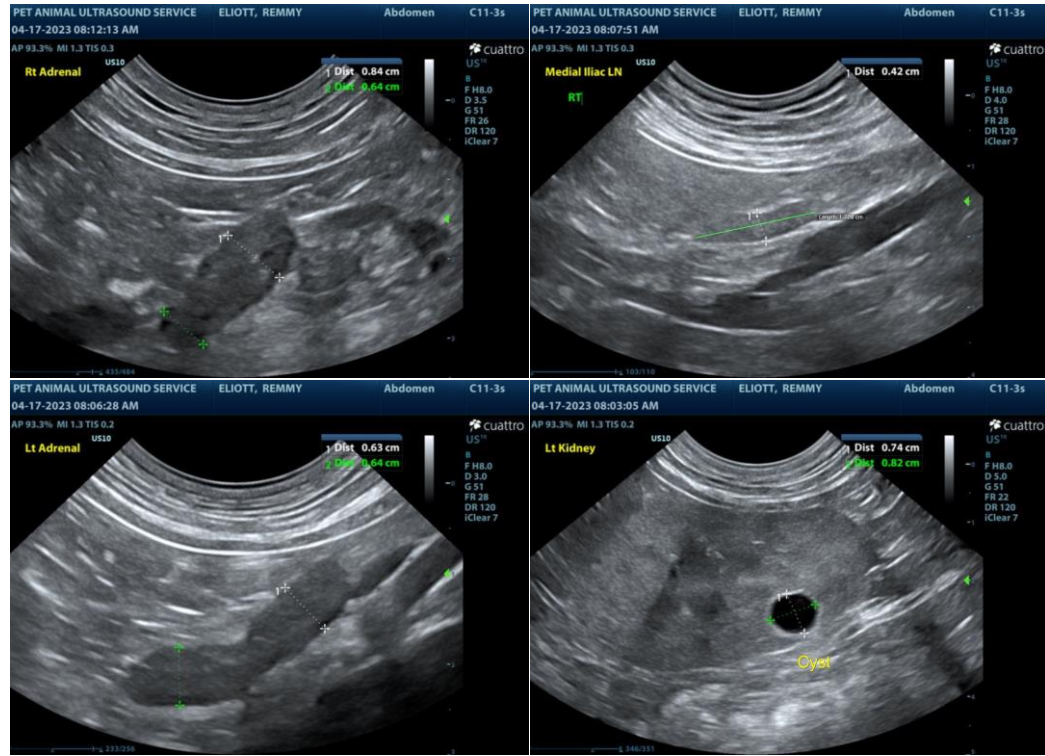
**SPECIES**  
 Canine

**BREED**  
 Shiba Mix

**SEX**  
 MN

**AGE**  
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**WEIGHT**  
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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.

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**INTERPRETED BY**

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

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Pamela Harrigan, RDMS

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