



**PATIENT PRESENTING CLINICAL SIGNS**

**Buster Cunha** Grade III-VI heart murmur. Distended abdomen. BP: 160 mmHg. \*Having bi-cavity ultrasound studies.  
**Abnormal PE/Chem/CBC/UA Results:** TP 7.7, glob 3.6, ALT 43, LP 1572, BUN/Crea 28, Chol 563, Amy 1446, Neut 80, Lymph 9. Urine: Protein 4+, WBC 2-3, RBC 2-3.

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED**

Mixed

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2 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**

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 loss of corticomedullary symmetry and definition expected for the age of the patient. Minor right kidney pyelectasia was present. The left kidney measured 6.5 cm in length. The right kidney measured 6.1 cm in length.

**AGE**

11yr

The area of the aortic trifurcation was free of pathology.

**WEIGHT**

33.6lb

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

**Adrenal Glands**

The bilateral adrenal glands were mildly 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 0.76 cm width in the cranial pole and 0.84 cm width in the caudal pole. The right adrenal gland measured 0.60 cm width in the cranial pole and 0.82 cm width in the caudal pole.

**INTERPRETED BY**

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

**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**

Rhode Island Animal Medical Center

**Liver/Gallbladder**

The liver exhibited generalized enlargement with capsule asymmetry. A large to possible multiple coalescing irregular non-homogenous nodular mass/masses present in the caudal liver lobes extending into the area of the gastric axis. An example measured 9.4 cm and 6.5 cm in diameter. Parenchyma not involved with the mass exhibited non-uniform to heterogenous parenchyma. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content with mild echogenic debris. The cystic and common bile ducts were normal.

**REFERRING VET**

Dr. Hart

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**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**

02/17/2023



**PATIENT**

Buster Cunha

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 was evident.

**BREED**

**Free Abdomen**

Mixed

No omental masses or overt lymphadenopathy was present.

**SEX**

Small pocket of scant free fluid noted between the cranial right kidney and caudal caudate liver lobe.

**MN**

**ULTRASONOGRAPHIC FINDINGS**

**AGE**

11yr

- Multiple to possibly coalescing nodular to cystic caudal liver masses
- Mild gallbladder debris-not consistent with mucocele criteria
- Bilateral chronic renal changes with right kidney pyelectasia
- Prominent to mildly non-homogenous adrenal glands-no adrenal tumors
- Scant perihepatic free fluid

**WEIGHT**

33.6lb

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Assuming normal clotting status a liver mass/es FNA for screening cytology is warranted for further assessment. Core surgical biopsy is likely required for definitive diagnosis. Given the size and extent of the liver mass with likely involvement of more than one lobe, complete surgical resection may be precluded.

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DABVP (Canine and Feline)

A UPC is suggested for further quantification of the proteinuria. The mildly prominent adrenal glands are of unclear clinical significance given lack of reported PU/PD etc. An adrenal workup could be considered if clinically indicated.

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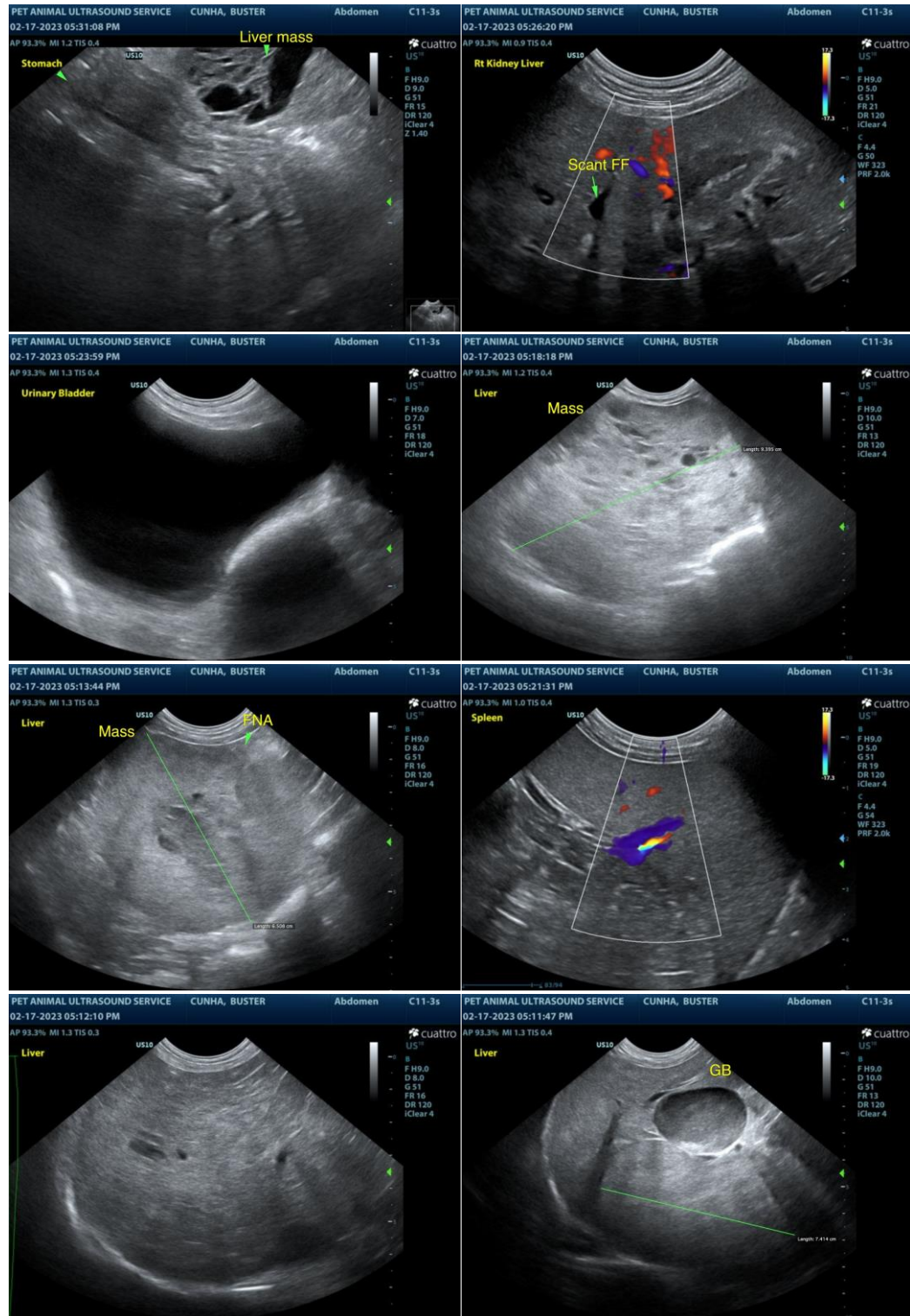
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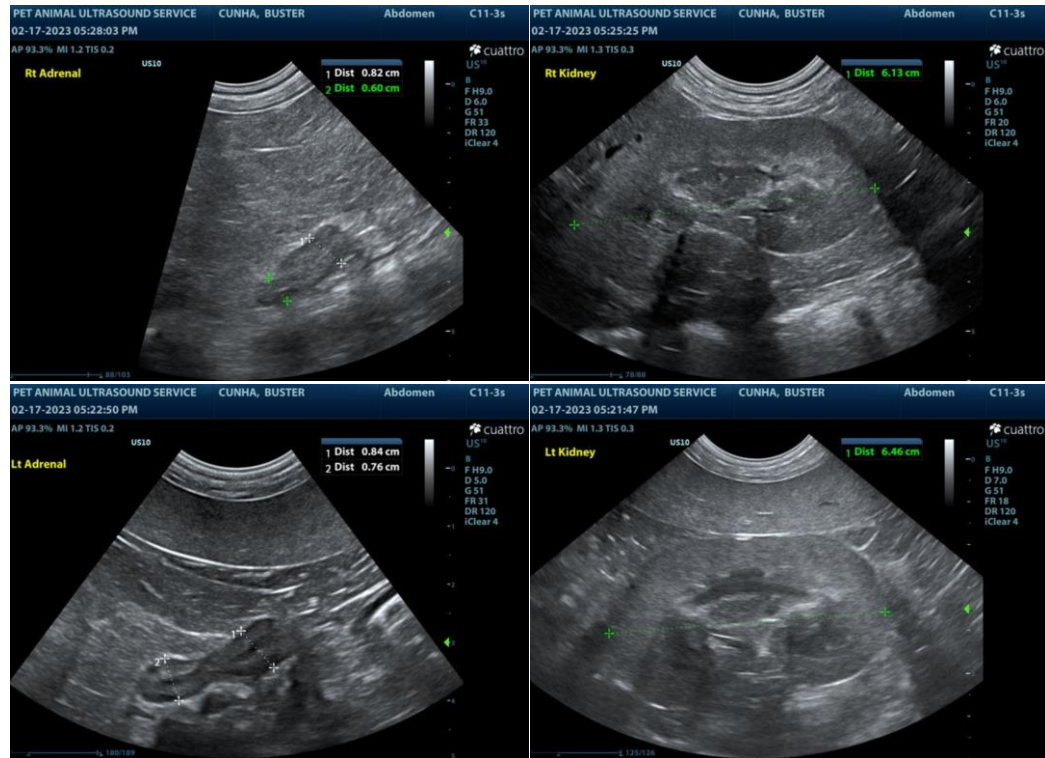
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

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