



**PATIENT**

**PRESENTING CLINICAL SIGNS**

Daisy Puccia

Presented for assessment of skin lesions. Lab findings as part of the pre-op preparation showed new changes. O reports P has less energy for the last 12 months, P is sleeping more (sometimes all day) and reduced appetite. Water intake appears normal, but O unsure. O thinks urinating at the same amount and frequency as before.

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: Recent labs revealed -ALT (SGPT) 171IU/L -BUN 35MG/DL -Creatinine 1.2MG/DL -SDMA 18.1UG/dL -PrecisionPSL 308U/L Exam today: -Possibly broken 107, rotated. 304 mobile. -Otherwise unremarkable exam.

**BREED**

Maltese

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**SEX**

FS

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 pinpoint to focal luminal mineral. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

**AGE**

13.5yr

Normal size and asymmetrical 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. No evidence of pelvic dilation was present. Multiple cortical cysts were noted. The left kidney measured 3.8 cm in length. The right kidney measured 3.2 cm in length.

**WEIGHT**

6.3lb

The area of the aortic trifurcation was free of pathology.

**Adrenal Glands**

**INTERPRETED BY**

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

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 0.37 cm width in the cranial pole and 0.48 cm width in the caudal pole. The right adrenal gland measured 0.60 cm width in the cranial pole and 0.55 cm width in the caudal pole.

**Spleen**

**IMAGING PERFORMED BY**

Sorbo

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.

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**Liver/Gallbladder**

**REFERRING VET**

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The liver was borderline enlarged with symmetrical capsule contour and subtle non-homogenous hepatic parenchyma echogenicity exhibiting mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. No masses or nodules noted. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content with mild non-organized hyperechoic debris. No evidence of gallbladder or peripheral gallbladder inflammation was present. The cystic and common bile ducts were normal.

**INVOICE**

13180ag

Transdiaphragmatic view revealed mild comet tail lung pattern, which is echogenic sound wave interface with microconsolidations within the caudal lung field. The lung field should not be visualized by sonogram unless pathology is present. Chest radiographs are recommended to rule out

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03/16/2023



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alveolar/lung disease such as neoplasia, thromboembolic disease, chronic inflammatory disease with microconsolidation.

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**Gastrointestinal**

**SPECIES**

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.

Canine

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.

**BREED**

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

Maltese

**Pancreas**

**SEX**

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

FS

**Free Abdomen**

**AGE**

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

13.5yr

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

- Pinpoint to focal dependent urinary bladder luminal mineral.
- Moderate chronic renal changes with cortical cysts and dystrophic medullary mineral.
- Non-specific subjective benign low-grade hepatopathy.
- Mild gallbladder debris (non-Mucocele)
- Overtly normal GI tract.
- Mild non-specific transdiaphragmatic comet tail artifact.
- Heterogenous pancreas-age related pancreatic changes, remodeling owing to previous inflammation or low grade to chronic pancreatitis possible.

6.3lb

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DVM, DABVP  
(Canine and Feline)

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Suspect low-grade inflammatory hepatopathy i.e., cholangiohepatitis given ALT elevation and gallbladder debris. Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered. Assessment of systemic BP recommended. Pancreatitis may be considered if there is evidence of cranial abdominal or subxiphoid discomfort on palpation. Monitoring of hepatic/renal parameters with as needed GI support and potential empirical therapy for low-grade to chronic pancreatitis may be considered.

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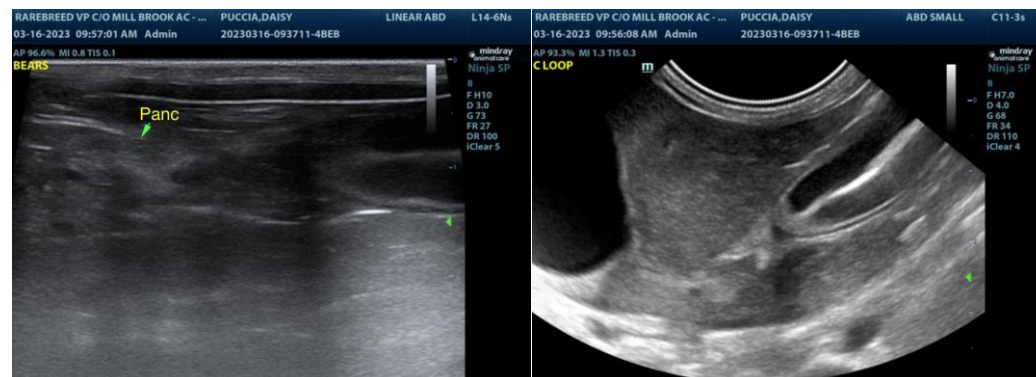
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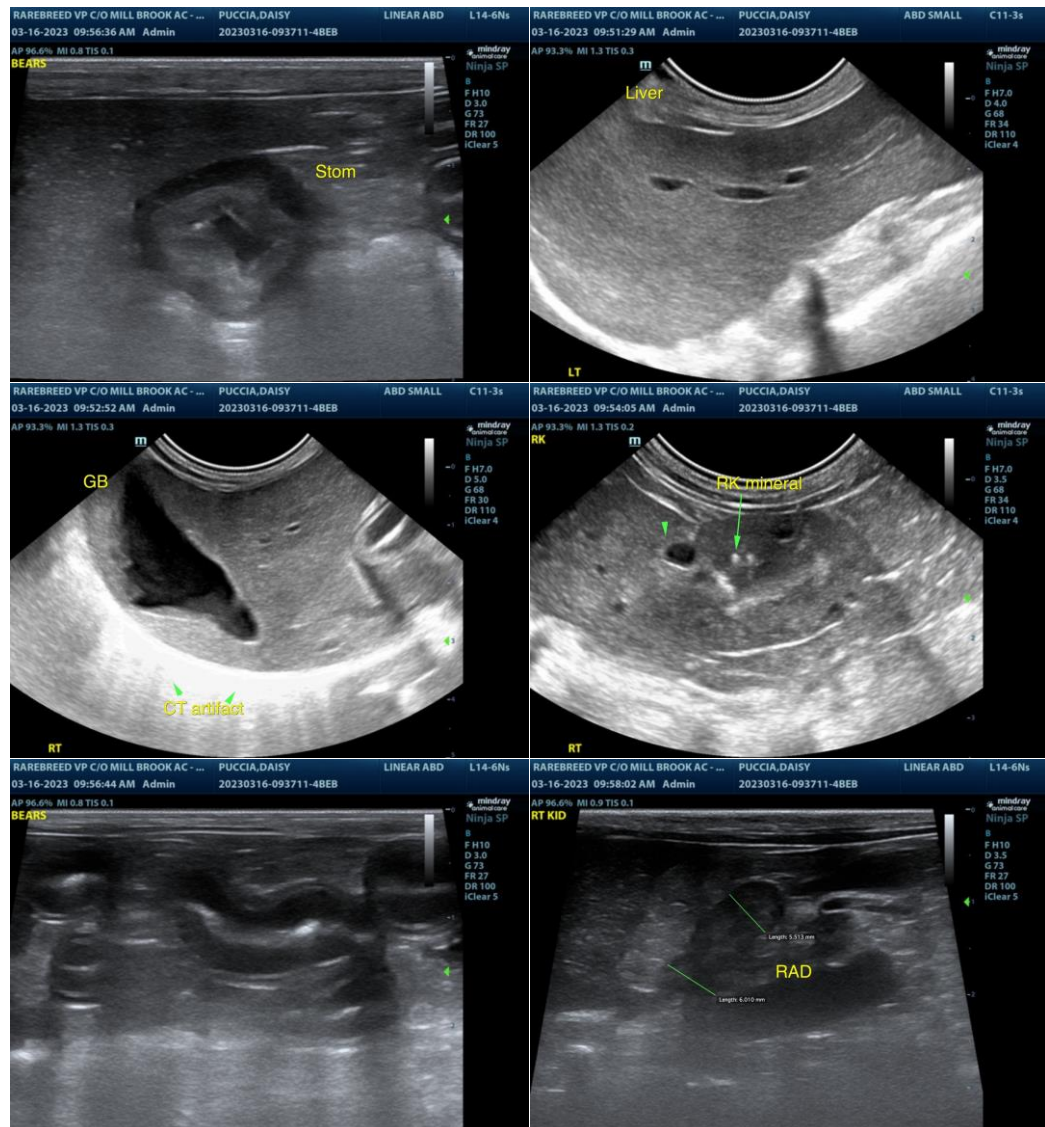
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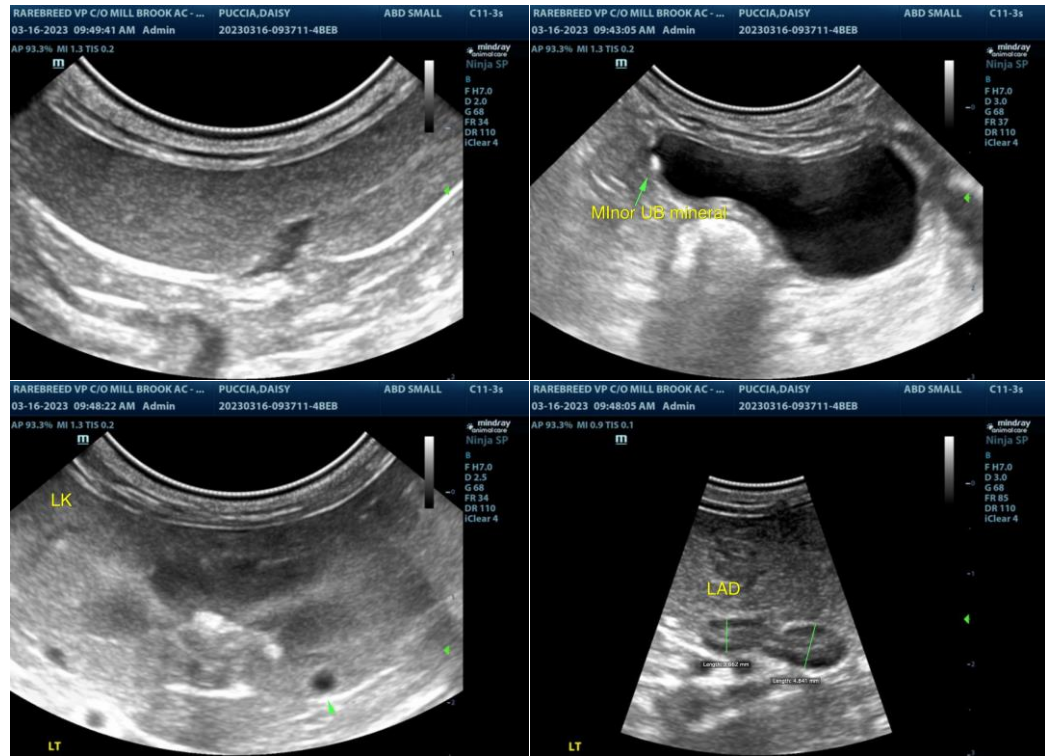
FS

**AGE**

13.5yr

**WEIGHT**

6.3lb



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.

**INTERPRETED BY**

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DVM, DABVP  
(Canine and Feline)

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.

**IMAGING PERFORMED BY**

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