



PATIENT

Toby Richner

SPECIES

Canine

BREED

Rat Terrier X

SEX

MN

AGE

13 years

WEIGHT

8.7 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

VCA Mckenzie AH

REFERRING VET

Dr. Arpaia

INVOICE

14012

DATE

6/3/22

PRESENTING CLINICAL SIGNS

Coughing at night -Increase urination -Progression in grade of murmur since last exam, now 3 out of 6. no overt signs of failure -Chronic degenerative mitral valve disease - previous Abd US finding mild bilateral renal medullary mineralization, mild vacuolar hepatopathy, moderate gall bladder debris, non mucocele

Abnormal PE/Chem/CBC/UA Results: from 4/2022 Alk Phos 176 Calcium 11.5 Neutrophils 48 Lymphocytes 46 Last blood panel in 2021 - all abnormal lab values have decreased with the exception of the Neutrophils which slightly increased Heart Rate and Respiratory Rates HR: 128 R: 50 Blood Pressure Measurements 160/125 m134, 144/126 m 128, 158/116 m125 Current Medications Proin ER 18mg, Fluticasone 110mcg/ metered dose, Clindamycin 25mg/mL

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 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 was noted.

No overt pathology was noted in the area of the residual prostate.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the left kidney. 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. Focal areas of previously noted nonobstructive medullary mineral were present. Cranial cortical cyst was present in the left kidney along with lateral cortex infarction. No evidence of pelvic dilation was present. The left kidney measured 4.0 cm in length.

Normal size and margination were present in the right kidney. 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. Focal areas of previously noted nonobstructive medullary mineral were present. Likely concurrent right kidney cortical infarction is suspected. No evidence of pelvic dilation was present. The right kidney measured 3.7 cm in length.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 1.6 cm length x 0.54 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 1.5 cm length x 0.48 cm width at the caudal pole.



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Spleen

The spleen exhibited normal size and contour with 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 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. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic criteria.

Liver/ Gallbladder

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. A solitary small thinly walled intraparenchymal cyst containing anechoic fluid was present. 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 containing primarily anechoic content with moderate congealed yet nonorganized subjectively mobile hyperechoic sludge. No evidence of gallbladder or peripheral gallbladder Inflammation was noted. 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.

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 overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

- Bilateral chronic renal changes with mild medullary mineral, left kidney and likely right kidney cortical infarctions, and left kidney cortical cyst
- Mild vacuolar hepatopathy pattern with solitary small Intraparenchymal cyst
- Moderate congealed yet mobile gallbladder debris - possible early gallbladder mucocele, no evidence of cholecystitis



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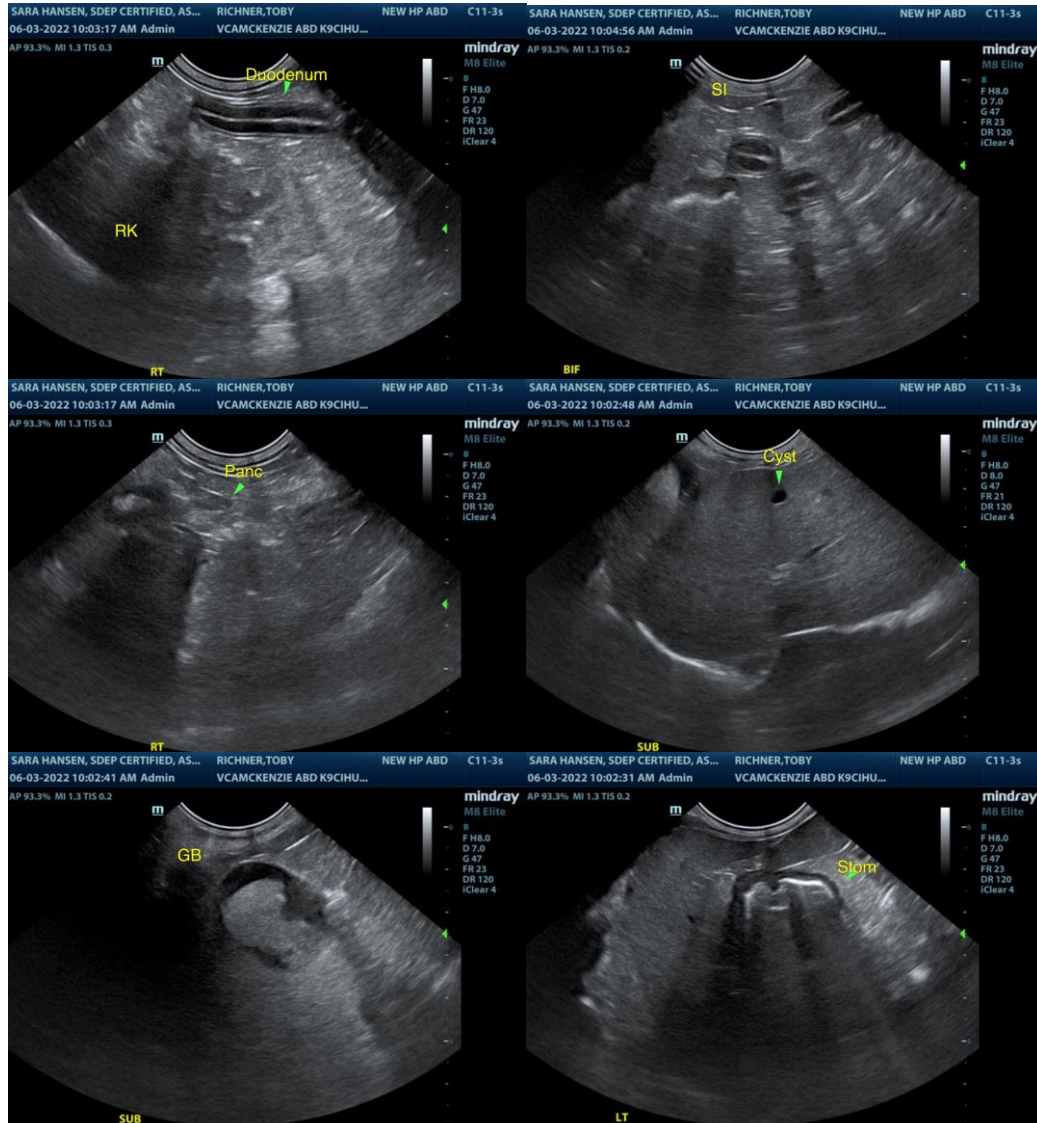
- Pancreatic remodeling - likely age-related pancreatic changes, potential for low-grade to chronic pancreatitis possible

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall, largely geriatric abdomen with similar sonographic to static findings and subjective mild progressive chronic renal changes were noted.

Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.

Hepatosupportive medications including Ursodiol are recommended if not currently instituted.





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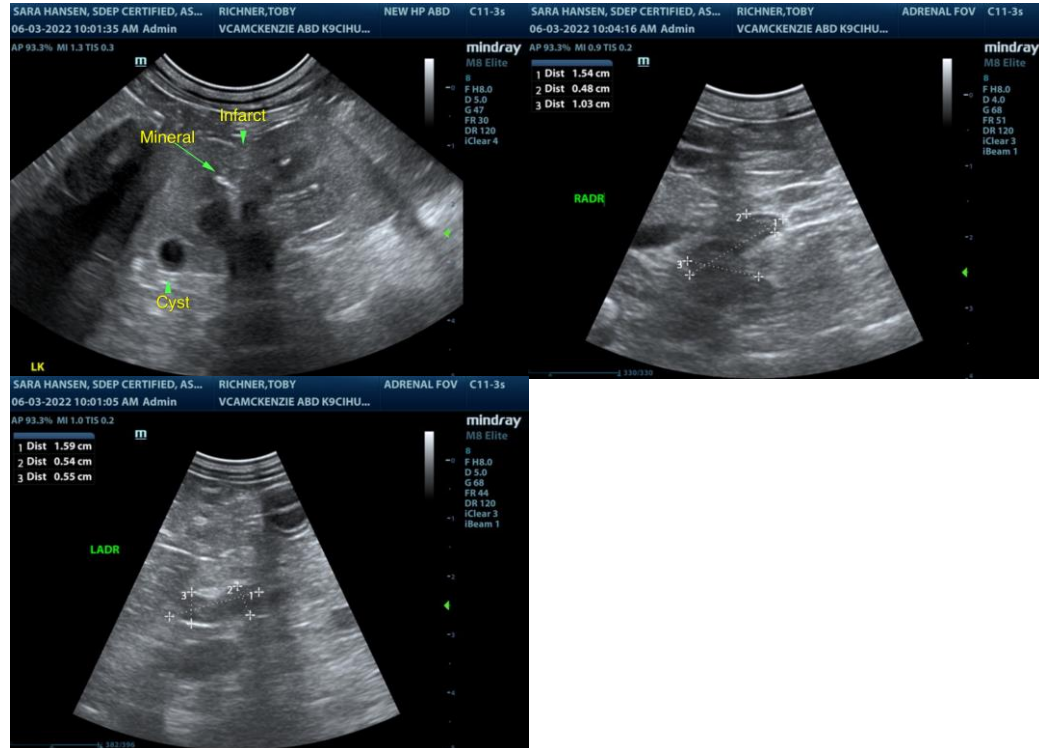
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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