

**PATIENT PRESENTING CLINICAL SIGNS**

Timmy Hart

Hospitalized for continued support for renal failure tx. Has had chronic renal disease. Went to RDVM 2 weeks ago, found increased renal values BUN > 130, Creat 3.8. Tried to add phosphate binders and famotidine but not taking them. On renal diet. Not eating well, having diarrhea w/ blood in it; went to RDVM 7/14 for this, no blood work done, sent here (?). No vomiting. BBVSH DVM did blood work 7/14/23: BUN > 140, creat 4.6, phos > 16.1, K+ 5.4. BP 204/190. UA: USG 1.016, otherwise NAF  
Current tx: -IVF -Cerenia -Pantoprazole -Benazepril and amlodipine -Entyce/capmorelin -AIOH (has started eating)

**SPECIES**

Canine

**BREED**

Yorkie

**SEX**

Neutered Male

Abnormal PE/Chem/CBC/UA Results: O: QAR. Slender. MM pink. Heavy tartar. Doesn't allow much oral exam, and "chatters" jaw a lot when try to examine, or sometimes just when he's laying in kennel and where he lays his jaw on potty pad is brown dilute liquid. Lymph nodes, thoracic auscult WNL. Haircoat WNL. On abdominal palpation, can't feel kidneys. No diarrhea or any BMs seen.

**AGE**

12 Years

**WEIGHT**

3.6 kg

**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. Primarily anechoic urine was present in the lumen. Minor non-dependent particulate sediment was present without evidence of calculus formation, which may indicate minor cellular debris/protein, crystalline debris, or mucus. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.

**INTERPRETED BY**

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

The residual prostate was free of pathology and measured 0.80 cm in diameter.

The area of the aortic trifurcation was free of pathology.

**IMAGING PERFORMED BY**

Dr. Callihan

The kidneys were normal in size, given patient body weight. Minor asymmetrical margination noted. Both kidneys exhibited mild cortical hypertrophy with non-uniform cortex echogenicity, reduced medullary volume, pinpoint dystrophic medullary mineral, and intermittent cortical cysts. No pyelectasia. The left kidney measured 3.8 cm. The right kidney measured 3.6 cm.

**HOSPITAL NAME**

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**Adrenal Glands**

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.45 cm at the cranial pole and 0.48 cm at the caudal pole. The right adrenal gland measured 0.59 cm at the cranial pole and 0.52 cm at the caudal pole.

**REFERRING VET**

Dr. Loeffler

**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.

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**Liver**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion.



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The gallbladder was non distended in size with mild to moderate non-dependent hyperechoic gallbladder sediment. The cystic duct and common bile ducts were normal without evidence of dilation.

**Gastrointestinal**

**SPECIES**

Canine

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.

**BREED**

Yorkie

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. Subtle segmental hyperechoic mucosal speckling was present, which although non-specific potential or age related variant, may at times be associated with potential enteritis.

**SEX**

Neutered Male

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

**Pancreas**

**AGE**

12 Years

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia. Consistent with age related pancreatic changes and minor age related remodeling.

**WEIGHT**

3.6 kg

**Free Abdomen**

No overt lymphadenopathy or peritoneal effusion was present.

**INTERPRETED BY**

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DVM, DABVP  
(Canine and Feline)

**ULTRASONOGRAPHIC FINDINGS**

- Bilateral moderate chronic nephropathy with cortical cysts
- Mild colitis with soft fecal matter
- Normal stomach / small bowel
- Mild gallbladder sediment (non-mucocele)

**IMAGING PERFORMED BY**

Dr. Callihan

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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The kidneys are sonographically consistent with moderate chronic to advanced renal disease given degree of azotemia and history of chronic kidney disease. Prognosis is dependent on renal response to supportive care including IV fluids ideally with monitoring of urine production. Concurrent gastroprotectants, therapy for colitis if continued hematochezia, renal diet if patient is eating and hypertension medication with monitoring of BP is recommended. Guarded immediate and term prognosis.

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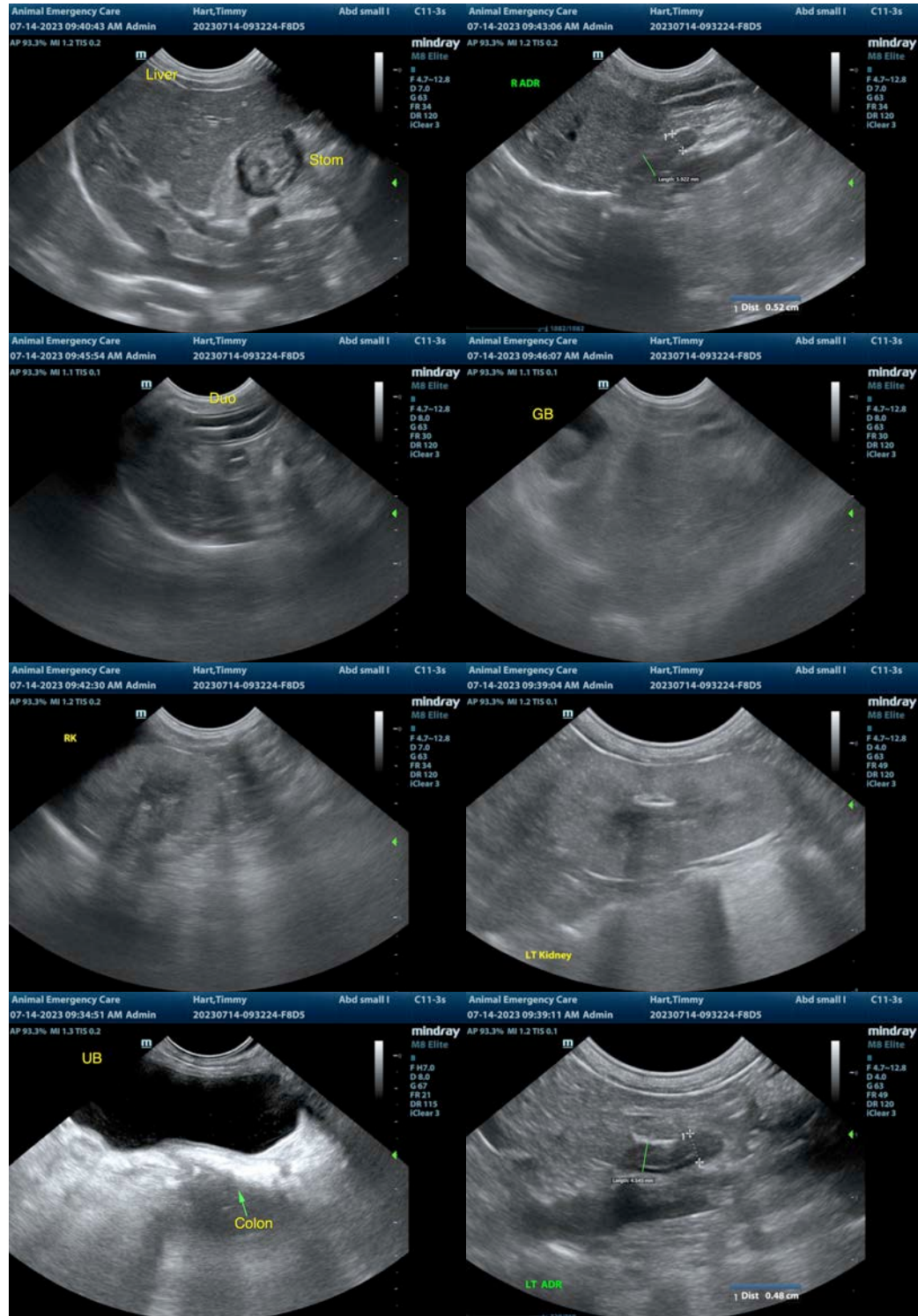
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**SPECIES**

Canine

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.

**BREED**

Yorkie

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**

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