

**PATIENT**

Harley Wicker

**SPECIES**

Canine

**BREED**

Lab

**SEX**

FS

**AGE**

9 years

**WEIGHT**

34 kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Callihan

**HOSPITAL NAME**

Animal Emergency  
Care

**REFERRING VET**

Dr. Drummund

**INVOICE**

14748

**DATE**

8/27/22

**PRESENTING CLINICAL SIGNS**

Presented to ER last night 8/26 as a transfer where she was seen for intermittent dry hacking cough X 1 week, vomiting after eating, and progressive decrease in appetite, lethargy, weight loss; PU/PD X approx 1 month

Abnormal PE/Chem/CBC/UA Results: Radiographs (with radiologist interp): mild diffuse bronchointerstitial pattern (no evidence of enlarged LN, pneumonia or mets) -Lepto NEG -Azotemia (BUN 117, Cr 11.3) -hyperphosphatemia (>16.1) -isosthenuria (USG 1.012) with proteinuria (100 mg/dL) -nonregenerative anemia (PCV 28%) -vomiting (controlled with Cerenia) -abnormal cPL \*a urine culture is pending\*

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, and cystourethral junction 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.

A solitary medial iliac lymph node was present. The lymph node was essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5). The lymph node measured 2.4 cm x 1.0 cm. This lymph node was not consistent with Inflammatory or neoplastic criteria and is incidental.

Normal renal size with asymmetrical margination were present in both kidneys. Both kidneys exhibited increased yet nonuniform cortex echogenicity. The renal cortex appeared to be mildly hypertrophied resulting in an altered cortex: medulla ratio. Mild loss of corticomedullary distinction was also present. The renal medullary volume was subjectively reduced. Mild bilateral pyelectasia was noted. The left kidney measured 7.2 cm in length. The right kidney measured 7.3 cm in length.

**Adrenal Glands**

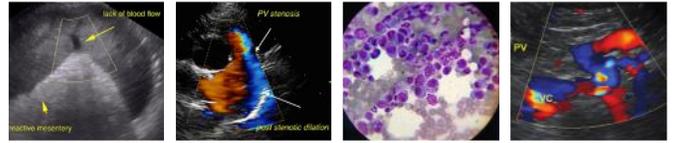
The bilateral adrenal glands were normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 0.68 cm width in the cranial pole and 0.56 cm width in the caudal pole. The right adrenal gland measured 1.0 cm width in the cranial pole and 0.74 cm width in the caudal pole.

**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.

**Liver/ Gallbladder**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size containing moderate, nondependent,



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mildly hyperechoic, nonorganized gallbladder debris. The gallbladder was otherwise normal. The cystic and common bile ducts were normal.

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**Gastrointestinal**

The stomach presented intact yet prominent wall layering with mild retained anechoic pyloric fluid.

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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. The duodenum exhibited nonspecific focal mildly hyperechoic speckling to indistinct mucosal striations.

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

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**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.

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**Free Abdomen**

No overt lymphadenopathy or peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

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- Bilateral chronic nephropathy with mild pyelectasia
- Gastroduodenitis pattern with nonspecific duodenal hyperechoic mucosal speckling to mild striations
- Mild pancreatic remodeling
- Moderate gallbladder debris (non-mucocele)

**IMAGING PERFORMED BY**

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The overall appearance of the kidneys was consistent with chronic nephropathy as opposed to acute kidney injury or insult, although the possibility of acute on chronic insult cannot be definitively excluded. Given the degree of azotemia in conjunction with inappropriate urine specific gravity, end-stage chronic renal disease or nonspecific nephritis such as glomerulonephritis, given the proteinuria, is possible. Further renal staging to include pending urine C/S and baseline UPC, as well as an assessment of systemic BP, is recommended.

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Potential for uremic gastritis / gastroduodenitis is suspected, although concurrent primary upper gastrointestinal inflammatory process or concurrent low-grade to chronic pancreatitis cannot be definitively excluded.

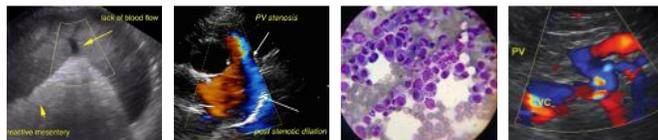
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The anemia in this patient likely correlates with chronic renal disease. Hospitalization with diuresis protocol with monitoring of renal parameters, urine output, and body weight is recommended with as-needed GI support. Prognosis is very guarded, given the degree of azotemia and sonographic renal presentation, yet likely dependent upon renal response to IV fluid therapy. A GI panel to include PLI/TLI/Cobalamin/Folate may be considered to rule out evidence of occult intestinal or pancreatic disease as a contributing factor to the patient's weight loss and gastrointestinal signs.



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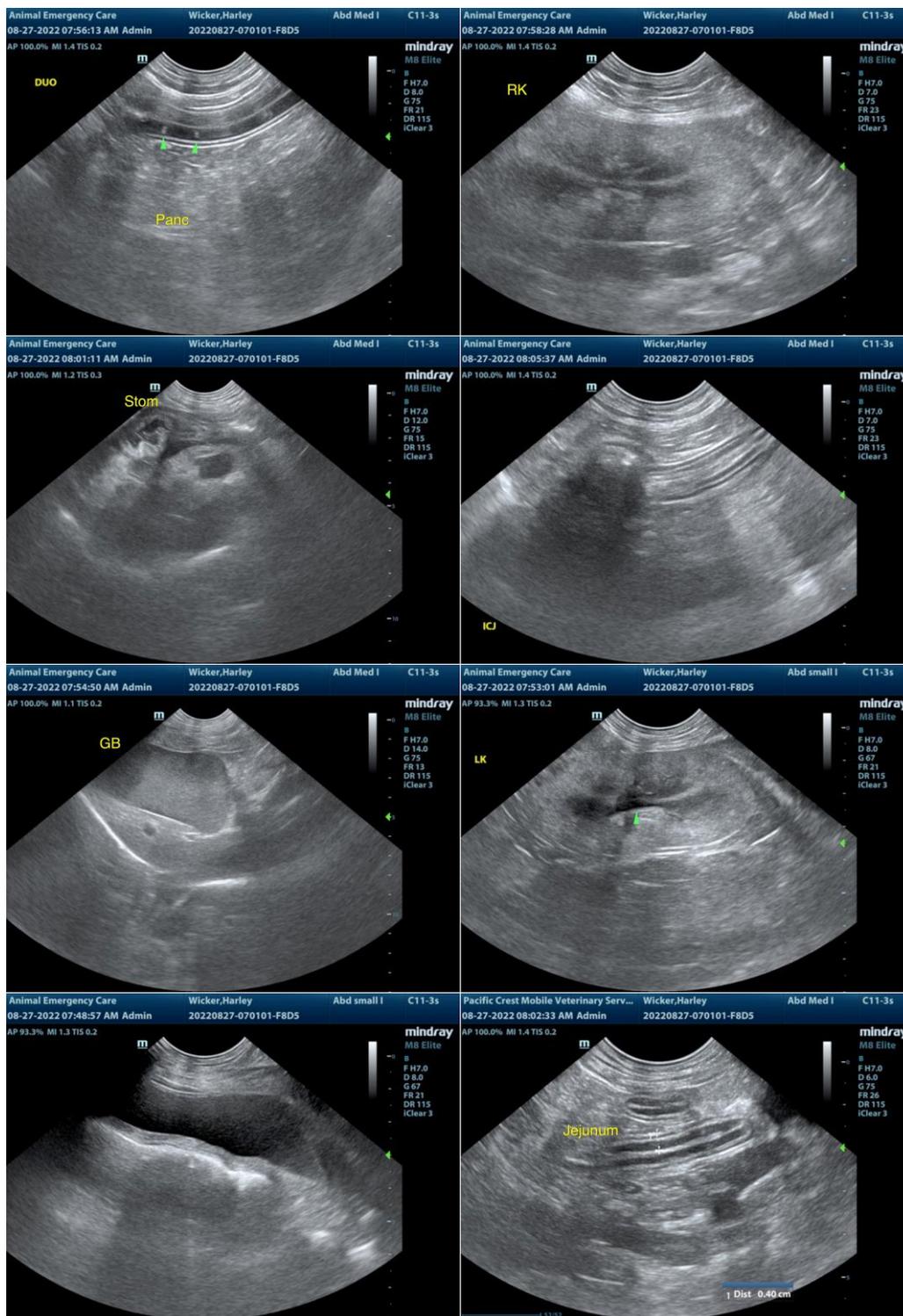
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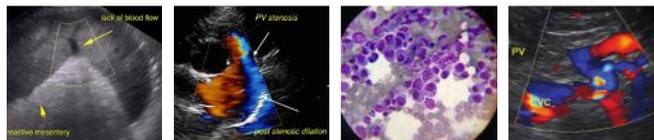
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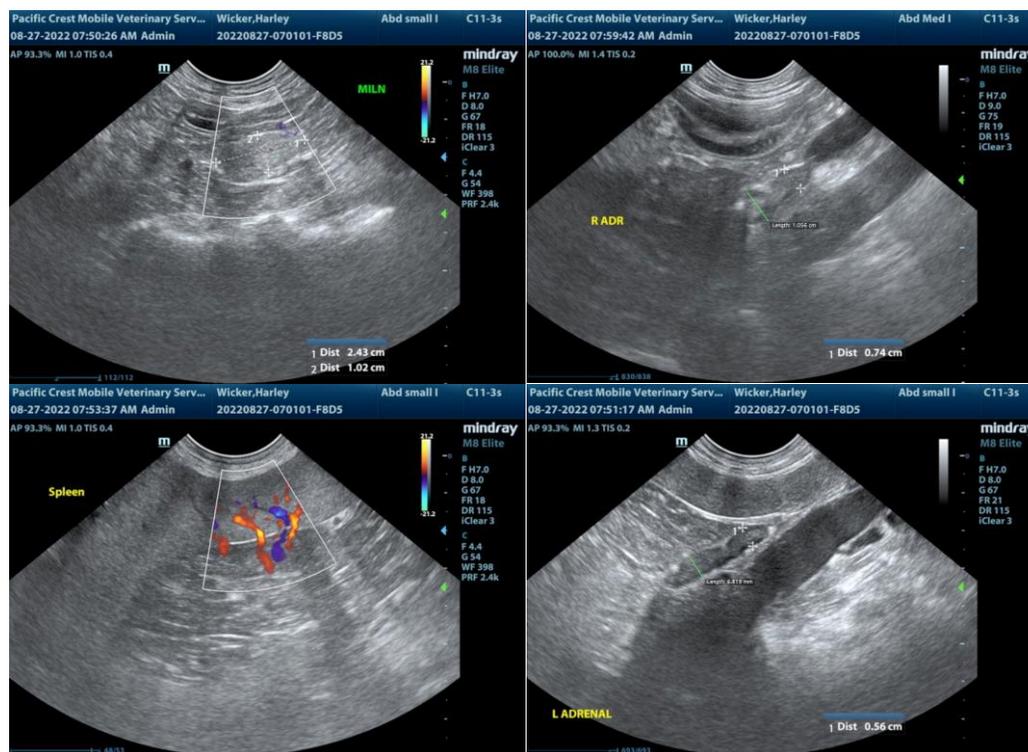
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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