



## PATIENT PRESENTING CLINICAL SIGNS

**Archie Byerly**  
**HISTORY:** Clinically doing well at home but concern for progressive azotemia on pre-anesthetic labwork. Patient is on telmisartan 20mg SID for proteinuria. Historical anemia on unknown cause that has been slowly improving over time. History of Ehrlichia.

## SPECIES

Canine

**ABNORMAL PE/CHEM/CBC/UA RESULTS:** CBC: rbc 4.73 (L), hematocrit 34.9 (L), hemoglobin 11.4 (L), remainder wnl. Chem/lytes: sdma 20 (H), creatinine 1.8 (H), bun 42 (H), albumin 2.5 (L), glob 4.8 (H), cardiopet proBNP 1,261 (H), remainder wnl 4Dx: Ehrlichia positive UA: USG 1.019 (L), pH 5.5, protein 1+, UPC 0.4

## BREED

Chihuahua Mix

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### SEX

Neutered Male

### Urinary System

The urinary bladder wall is normal in thickness. The mucosal surface is smooth. The bladder is moderately distended. Luminal contents are anechoic. No cystic calculi are observed. The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

### AGE

3

The prostate is normal in size (1.28 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

### WEIGHT

27 lbs

The left kidney is normal in size (5.31 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. Moderate-to-severe pyelectasia is present (0.79 cm in the longitudinal plane). There is no evidence of infarcts or hydronephrosis. Renal vasculature is normal.

### INTERPRETED BY

Andrea Nicastro, DVM,  
 Diplomate ACVIM  
 (Small Animal Internal  
 Medicine)

The right kidney is normal in size (5.69 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. Mild pyelectasia is present (0.26 cm in the longitudinal plane). There is no evidence of infarcts or hydronephrosis. Renal vasculature is normal.

### IMAGING PERFORMED BY

Dr. Julia Wiederholt

### Adrenal Glands

The region of the left adrenal gland is evaluated. No obvious pathology is observed in this region.

### HOSPITAL NAME

Dreaming Summit AH

The right adrenal gland is normal in size (0.82 cm at cranial pole) (0.46 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

### REFERRING VET

Dr. Julia Wiederholt

### Spleen

The spleen is normal in size (1.60 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

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### Liver

The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative, or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion.

### DATE

2-18-26

The gallbladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal/not seen.



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### ***Gastrointestinal***

The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

### ***Pancreas***

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

### ***Lymph Nodes***

A 3.0 x 0.78 cm medial iliac lymph node is visualized.

### ***Free Abdomen***

There is no obvious evidence of free fluid.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

Bilateral nonspecific chronic renal changes with pyelectasia (more pronounced in the left kidney) and subtle dystrophic mineralization. The pyelectasia may be secondary to pyelonephritis, parenchymal remodeling, PU/PD (if applicable), or some combination thereof. Given the history of proteinuria, a protein-losing nephropathy is certainly possible. Protein-losing nephropathies are often idiopathic. However, they could be secondary to infectious, inflammatory, immune-mediated, or neoplastic diseases. Other considerations for chronic azotemia include prior insult (i.e., infection, toxin, hypotensive event).

### **Secondary Findings**

The prominent medial iliac lymph node is likely reactive, with a low possibility of emerging neoplasia.

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given the patient's clinical history, consider the following:

1. Urine culture and sensitivity to assess for occult infection
2. Leptospirosis testing, particularly if clinical suspicion for the disease is high
3. A resting cortisol level to screen for hypoadrenocorticism. If resting cortisol level is < 2.0 mcg/dL, an ACTH stimulation test is recommended.
4. Baseline blood pressure measurement
5. Serial monitoring of the patient's kidney values, UPC, and blood pressure to assess progression of disease



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**REFERRING VET**

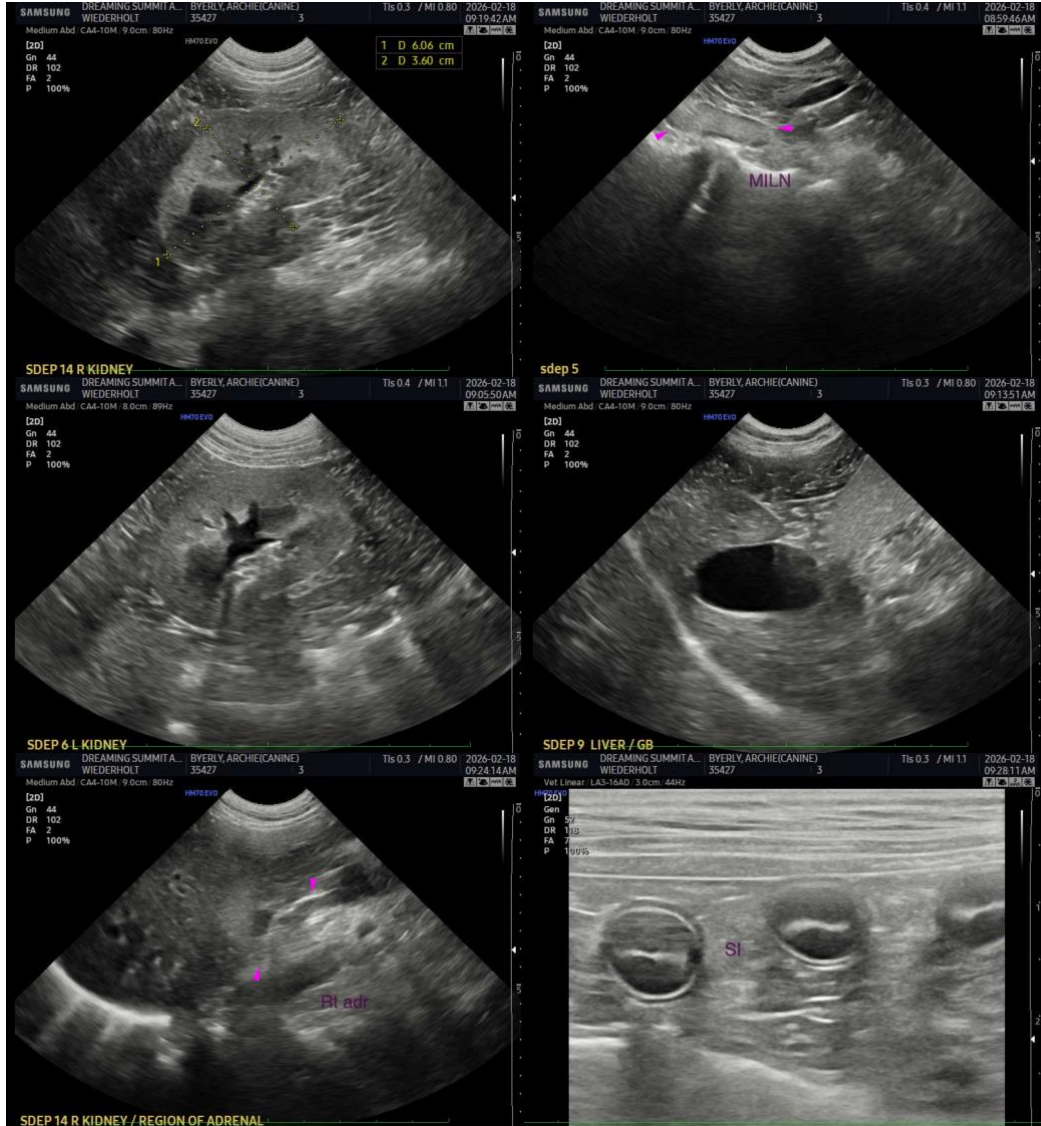
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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