


**DATE PRESENTING CLINICAL SIGNS**

11/4/25

**Patient History:** Monitoring echocardiogram for p with mitral valve disease. Murmur is 4/6 systolic and left-sided. Was 2/6 October of 2024. P has proteinuria and possible hypertension (measurements yesterday were 178-180. will be repeating). Regarding Abd. US: Several elevations noted on annual labs this year including Cholesterol, Lipase, cPL, ALP. P now has significant proteinuria as well.

**PATIENT**

Brody Gray

**SPECIES**

Canine

**BREED**
Cavalier King Charles  
spaniel
**SEX**

Male, neutered

**AGE**

8/29/2016

**WEIGHT**

30 lbs.

**INTERPRETED BY**

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

**HOSPITAL NAME**

Perry Hall AH

**REFERRING VET**

Dr. Hatzigiannakis

**INVOICE**

13311

**Current Medications:** Today starting Benazepril, 5 mg po SID for proteinuria

**Labwork Results:** Labwork attached, reported as: 10/29/25 CBC- Hemoglobin (H) 13.8 (14.6 - 21.7 g/dL) Reticulocyte Hemoglobin (L) 23.6 (23.8 - 28.3 pg). Chem- ALP (H) 290 (5 - 160 U/L) Cholesterol (H) 379 (131 - 345 mg/dL) Lipase (H) 459 (0 - 250 U/L). Urine protein:Creatinine ratio(H) 1.6. UA USG 1.022 pH 7.5 protein 3+

T4 wnl, cPL is pending

**Date of Previous IntraPet Ultrasound:** No previous.

**Sedation:** Not required to complete full diagnostic ultrasound.

**Stat Report:** Not requested.

**Imaging Performed by:** Stephanie Warga RDCS, RVT.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**
**Urinary System**

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is mildly to 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 5 cm, are normal.

The prostate is normal in size (0.83 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal in size (5.59 cm in length) with a slightly irregular shape. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. At least 2 small cortical cysts are seen, the largest measuring 0.57 cm in its longest dimension. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (5.59 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is mildly enlarged (0.52 cm at cranial pole) (0.72 cm at caudal pole) with a relatively 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.

The right adrenal gland is normal in size (0.68 cm at cranial pole) (0.57 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.

**Spleen**

The spleen is normal in size (1.03 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.

### ***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. The portal vein to caudal vena cava ratio is approximately 1:1.

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.

### ***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 ileocecolic junction and colonic wall are normal. There is no evidence of an obstructive pattern.

### ***Pancreas***

The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

### ***Lymph nodes***

A few prominent mesenteric lymph nodes are visualized, one of the nodes measuring 0.89 x 0.34 cm.

### ***Free Abdomen***

There is no obvious evidence of free fluid.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings:**

- Minor bilateral, non-specific, age-related renal changes. Given the patient's clinical history of proteinuria, a protein losing nephropathy is considered likely. Most protein losing nephropathies are idiopathic. However, they can be secondary to infectious, inflammatory, immune mediated and neoplastic diseases. Therefore, an underlying cause should be sought if possible.

### **Secondary Findings:**

- Mild left adrenomegaly
- Gallbladder debris, non-mucocele
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

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

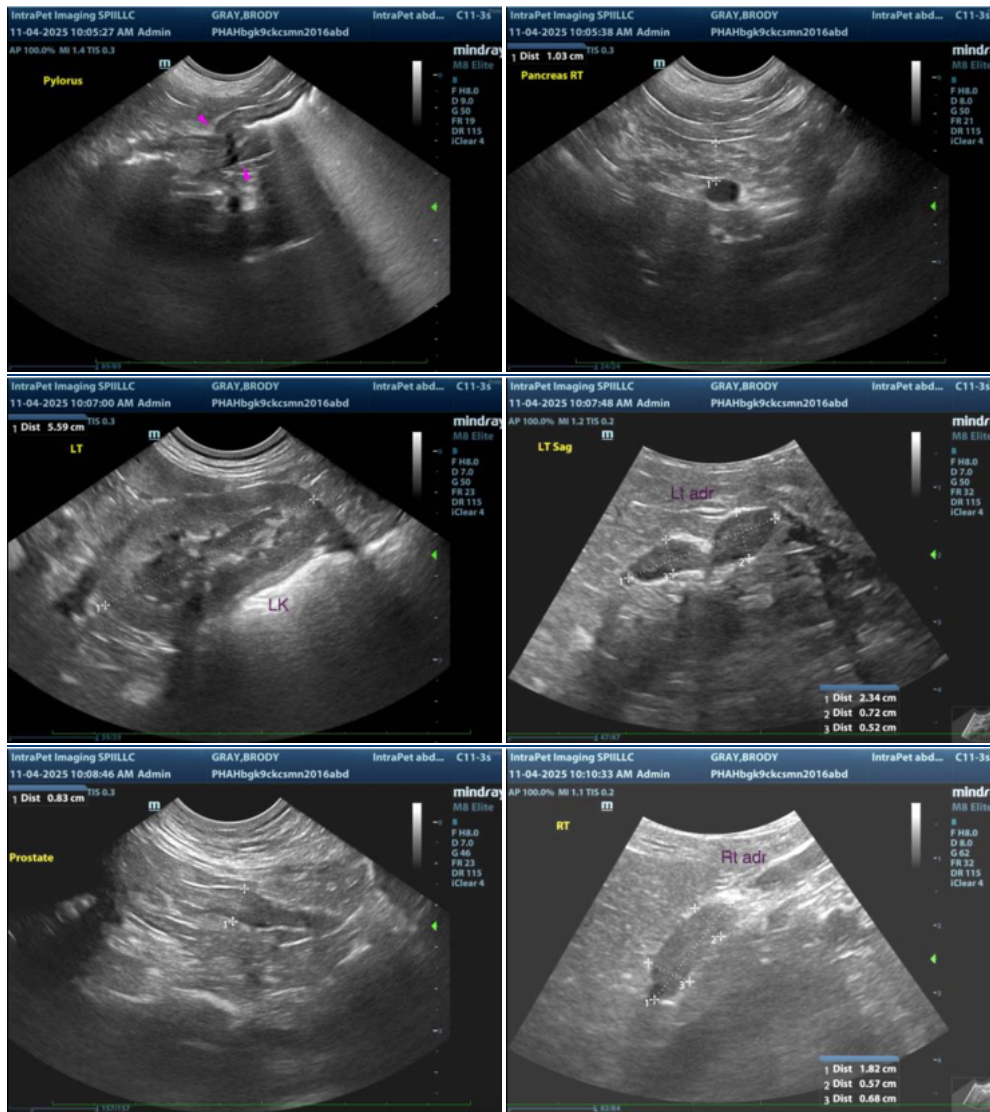
- Given the likelihood of a protein losing nephropathy, consider the following:
  1. Management of systemic hypertension, if present
  2. If Benazepril is ineffective at controlling the proteinuria, consider switching to an angiotensin receptor blocker (i.e., Telmisartan).

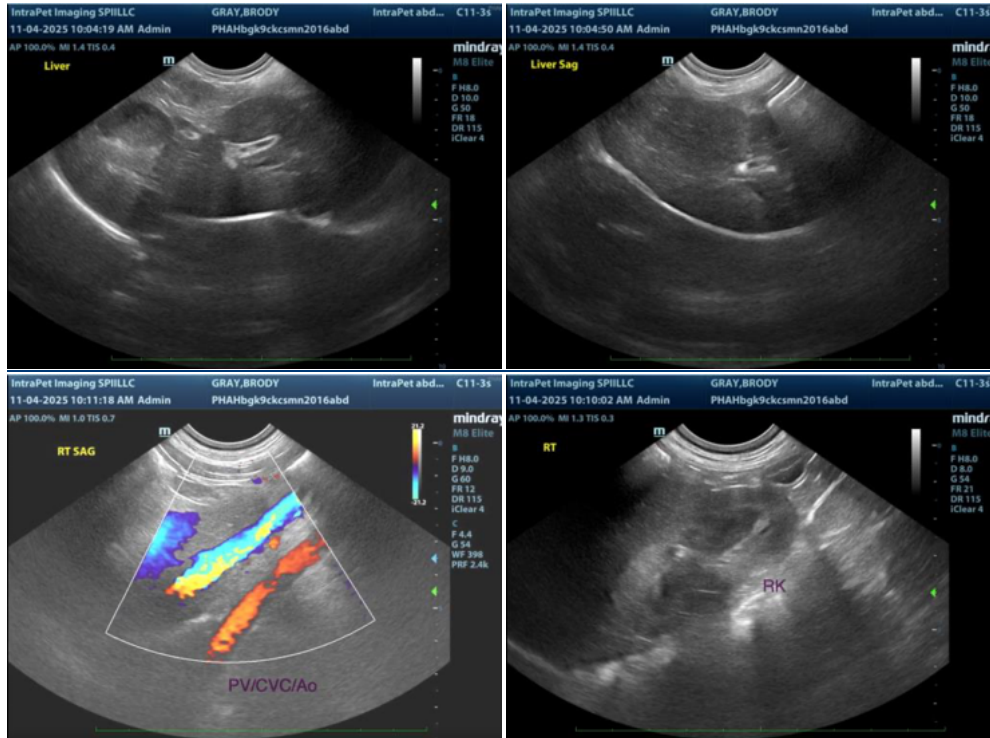
3. Initiation of omega 3 fatty acids for their renoprotective effect.

4. Transition to a prescription renal diet.

5. Serial monitoring of the patient's UPC, renal values, blood pressure and serum albumin to assess progression of disease.

- Serial monitoring (i.e., every 3-4 months) of the patient's liver values is recommended. If liver values continue to increase, a repeat abdominal ultrasound +/- hepatic tissue sampling may be warranted.
- Consider testing for hyperadrenocorticism with a low-dose dexamethasone suppression test or ACTH stimulation test if clinical signs (i.e., PU/PD) develop in the future.





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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