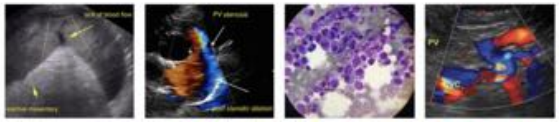




**PATIENT**

Harlow Hollman

**SPECIES**

Canine

**BREED**

Beagle

**SEX**

Spayed Female

**AGE**

5.26.2014

**WEIGHT**

38.6 lb

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

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

**HOSPITAL NAME**

Brighton AH

**REFERRING VET**

Dr. Elizabeth Wetzel

**INVOICE**

11468

**DATE**

8.22.22

## PRESENTING CLINICAL SIGNS

Proteinuria of 0.8. Prior history of urinary tract infection. Kidney values are normal Prior history of mild liver enzyme elevations which improved with Denamarin. Currently on Benazepril.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The **urinary bladder** wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with mostly anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 4-5 cm, are normal.

The **left kidney** is normal size (5.70 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The **right kidney** is normal size (5.90 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with 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 normal size (0.56 cm at cranial pole) (0.58 cm at caudal pole) (2.01 cm in length); normal shape; 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 size (1.19 cm at cranial pole) (0.55 cm at caudal pole) (2.49 cm in length); normal shape; 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 (2.22 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.

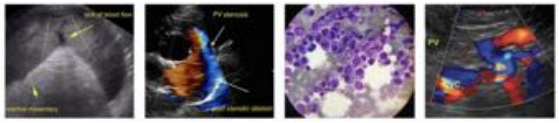
### *Liver*

The **liver** is subjectively prominent in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. 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 **gall bladder** lumen is moderately distended. The wall is thin and smooth. A scant amount of aggregated, echogenic debris/sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

### *Gastrointestinal*

The **stomach and intestine** are free of stasis and exhibit normal peristaltic activity. 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 thickness is normal with a normal layering pattern and appropriate mural





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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.

***Free Abdomen***

The **peritoneal cavity** is normal. There is no evidence of inflammation or effusion. The abdominal **lymph nodes** are normal/not visible.

***Other***

A **brief echocardiogram** reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

## ULTRASONOGRAPHIC FINDINGS

### Primary Findings

- Bilateral, chronic nephropathy. The presence of proteinuria in combination with the sonographic changes are consistent with a protein-losing nephropathy (PLN). Most PLNs are idiopathic. However, PLN can occasionally be secondary to infectious disease (i.e., tick-borne, heartworm, Leptospirosis) neoplasia, or inflammatory disease.

### Secondary Findings

- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely. However, Correlation with the patient's liver values is recommended.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A urine culture and sensitivity to assess for underlying urinary tract infection is recommended. If negative, a repeat UPC with free-catch samples collected over a 2–3-day span, is also recommended.

Consider testing for infectious diseases (i.e., tick panel, heartworm, +/- Leptospirosis) as well as thoracic radiographs to assess for occult disease in the chest.

Long-term diagnostic/therapeutic could include the following:

1. Omega 3 fatty acids at 60-65 mg/kg of DHA and EPA combined daily
2. Anti-thrombotic agent (i.e., Clopidogrel)
3. Angiotensin receptor blocker
4. Prescription renal diet
5. Serial monitoring of patient's renal values, blood pressure and UPC to assess for progression of disease

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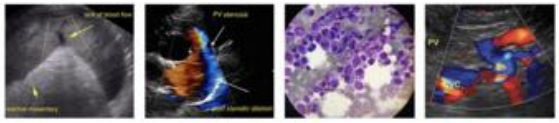

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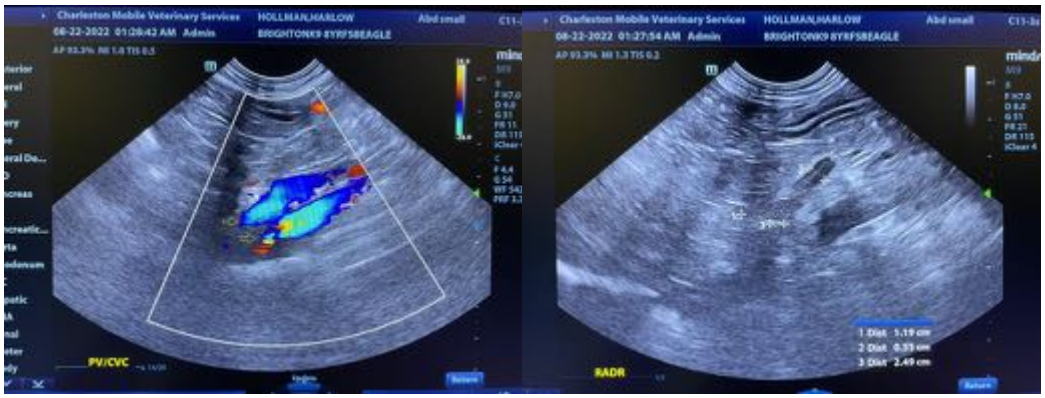


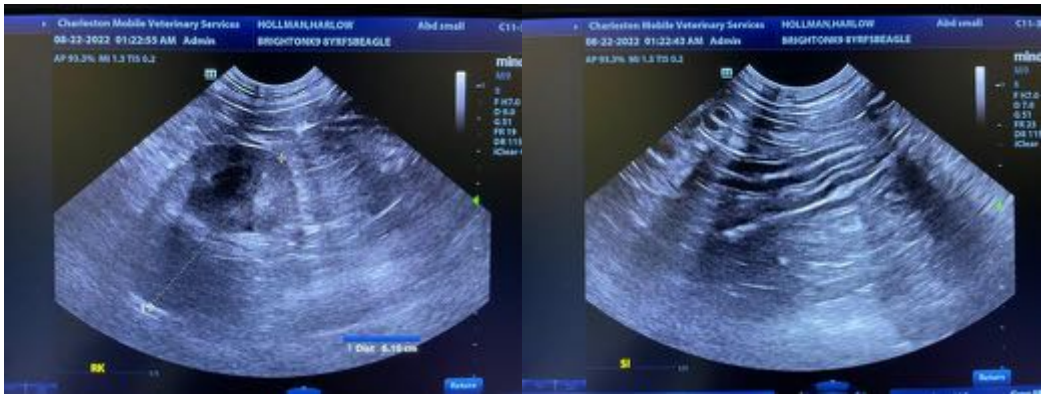


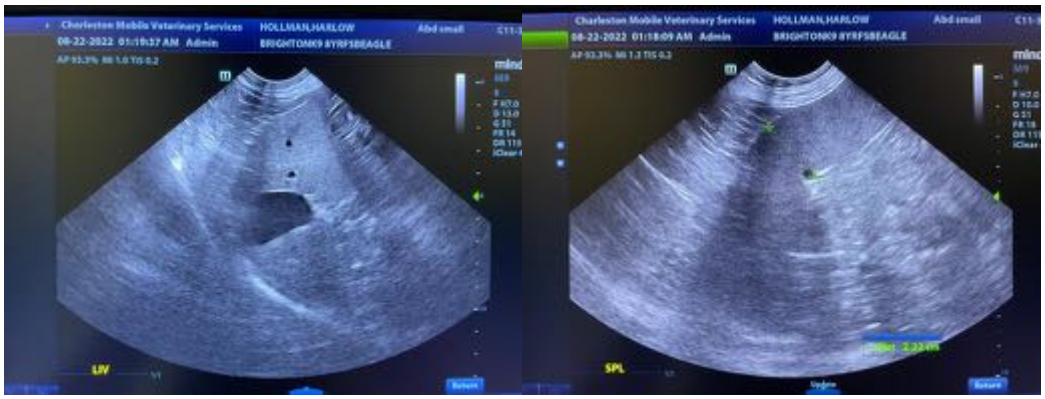

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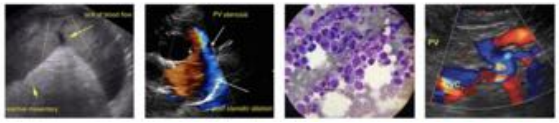

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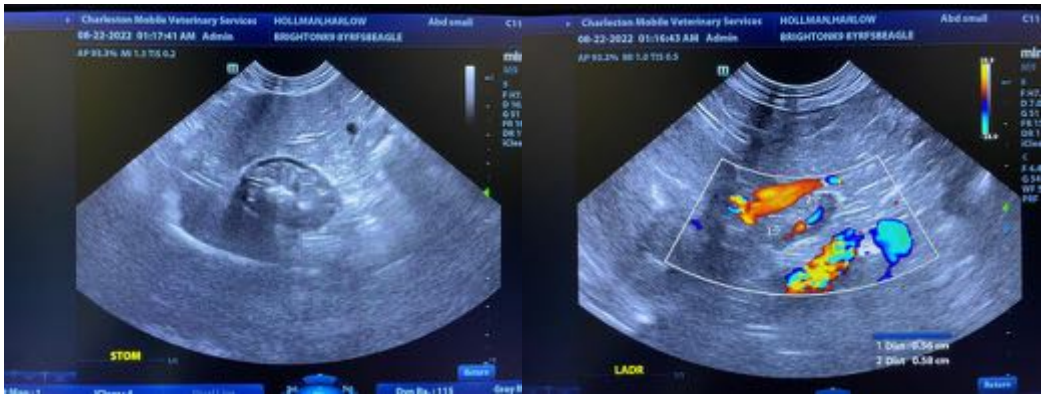


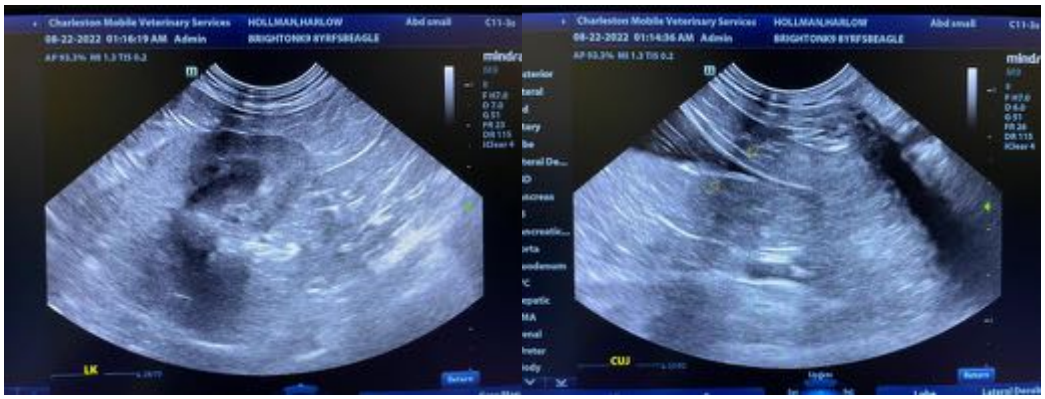



**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

**Andrea Nicastro**, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com