

**DATE PRESENTING CLINICAL SIGNS**

8/17/22

P has CKD Iris stage 2, proteinuria.

PATIENT

Penny Boening

Current Medications: Purina NF, Dasuquin, Gabapentin, Benazepril 5mg- 3 SID.

Lab Results: UPC 2.6, USG1.013, inactive sediment, resting cortisol is normal, creatinine 2.4, BUN 26, SDMA 34, albumin 2.4

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

SPECIES

Canine

Imaging Performed By: Andi Parkinson, BS, RDMS.

BREED

Labrador

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is mildly distended. The wall in the region of the apex is moderately thickened (up to 0.73 cm) and irregular. The wall tapers to a normal thickness as it extends toward the cystourethral junction. A scant amount of echogenic debris is observed within the lumen. The region of the trigone and the visible portion of the proximal urethra are normal.

SEX

Female, spayed

The left kidney is borderline small in size (5.54 cm in length) with a relatively normal shape and architecture. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths or hydroureter.

AGE

2/11/2011

The right kidney is normal size (4.45 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

WEIGHT

55 lbs.

Adrenal Glands

The left adrenal gland is normal size (0.56 cm at cranial pole) (0.58 cm at caudal pole) (1.98 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.

INTERPRETED BY

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

The right adrenal gland is normal size (0.70 cm at cranial pole) (0.56 cm at caudal pole) (2.41 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.

HOSPITAL NAME

Warm and Fuzzy Vet

Spleen

The spleen is normal in size (1.96 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.

REFERRING VET

Dr. Hepner

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. No pathological hepatic lymphadenopathy observed. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small to moderate amount of aggregated echogenic mobile debris/sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

INVOICE

13854

Gastrointestinal

The gastric lumen is not distended. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering

pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

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.

ULTRASONOGRAPHIC FINDINGS

- The bilateral renal changes, in conjunction with the clinical history, are consistent with a chronic protein losing nephropathy (PLN). Most cases of PLN are idiopathic. However, they can occasionally be secondary to infectious, inflammatory, or neoplastic disease.
- The urinary bladder wall changes could be consistent with cystitis or may be artifactual due to lack of full repletion.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the history of pyuria in July of 2022, a urine culture and sensitivity is recommended.
- A baseline blood pressure measurement should also be considered, if not already performed.
- To rule out underlying causes of PLN, consider further testing for infectious diseases (i.e., tick borne, heartworm). Also consider three-view thoracic radiographs in order to evaluate for occult neoplasia in the chest.
- Other therapeutic considerations include the following:
 1. Antithrombotic agent (i.e., Clopidogrel)
 2. Omega-3 fatty acids
 3. Prescription renal diet, if the patient will tolerate it.
 4. +/- an angiotensin receptor blocker, particularly if the patient's UPC does not substantially improve with an ACE inhibitor alone.
- Serial monitoring (i.e., every 3-4 months) of the patient's renal values, UPC and blood pressure are recommended to assess for disease progression.



The information and recommendations provided are based on the images presented by the referring veterinarian. 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