**DATE PRESENTING CLINICAL SIGNS**

8.29.2022 Protein-losing nephropathy, hypertension. Clinically well, just started on standard therapy, about to start amlodipine. PE--under muscled but otherwise unremarkable.

PATIENT

Oscar Keavney

Current Medications: Enalapril 0.625mg BID, Amlodipine 0.3mg once daily, Clavamox BID, Welactin 1/4 scoop EOD

Lab Results: 8/11: Alb 2.1, BUN 64, creat 1.2, tCa 8.1, PLT 612K, proteinuria w/UPC 10.1, USG 1.035.
5/26: USG >1.050, UPC 9.6

SPECIES

Canine

5/12: Alb 2.2, BUN 67, creat 1.6, tCa 8.2.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

BREED

Yorkie

Imaging Performed By: Andi Parkinson, BS, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Intact Male

Urinary System

The **urinary bladder** wall is normal in thickness and the mucosal surface is smooth. The bladder is mildly to moderately distended. A small amount of aggregated, echogenic, gravity dependent debris is observed within the lumen. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

AGE

9/25/2014

The **prostate** enlarged (1.20 cm in width) with a relatively normal shape. The parenchyma is hyperechoic relative to surrounding omental fat and slightly heterogenous in appearance. No distinct focal lesions are observed. The prostatic urethra is not overtly dilated.

WEIGHT

1.68kg

The **left kidney** is normal size (3.16 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with poor corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. Pyelectasia is present (0.16 cm in the longitudinal plane). There is no evidence of nephroliths, infarcts or hydroureter.

INTERPRETED BY

Andrea Nicastro, DMV,
Diplomate DACVIM
(Small Animal
Internal Medicine)

The **right kidney** is normal size (3.40 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. Hyperechoic shadowing diverticular foci are visualized. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

HOSPITAL NAME

Nexus Veterinary
Specialists

Adrenal Glands

The **left adrenal gland** is normal size (0.45 cm at cranial pole) (0.47 cm at caudal pole) (1.65 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.

REFERRING VET

Dr. Steele

The **right adrenal gland** is normal size (0.46 cm at cranial pole) (0.41 cm at caudal pole) (1.11 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.

INVOICE

11516

Spleen

The **spleen** is normal in size (0.98 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 slightly rounded peripheral contours. The parenchyma is hypoechoic relative to the spleen and homogenous in appearance. No distinct focal lesions are observed. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The **gall bladder** lumen is moderately distended. The wall is thin and smooth. A small amount of aggregated, echogenic, mostly gravity dependent 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 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

The **testicles** are subjectively normal in size, the left measuring 1.97 x 1.04 cm; the right 1.79 x 1.25 cm; and symmetrical with homogenous parenchyma.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

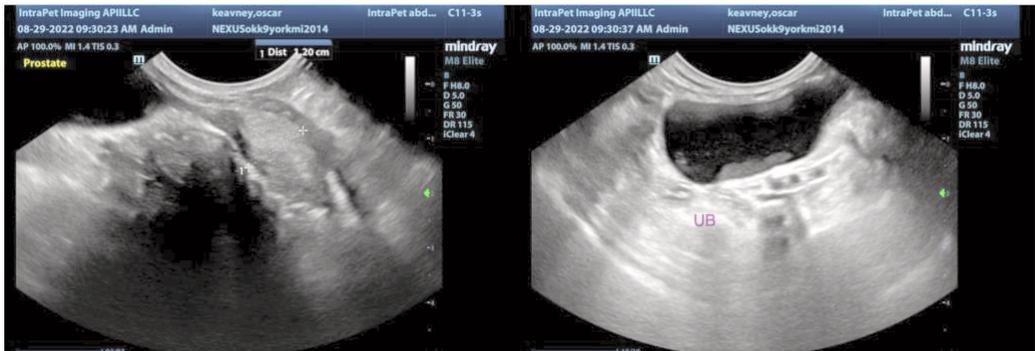
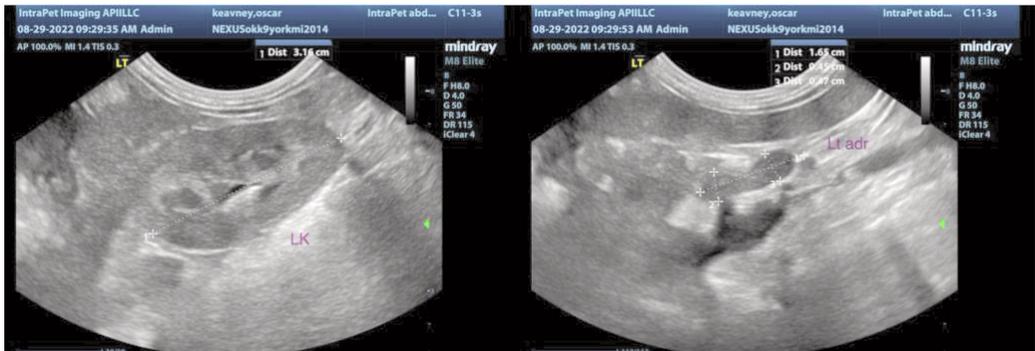
- The clinical history in conjunction with the sonographic renal changes are consistent with a protein-losing nephropathy (PLN). Most cases of PLN are idiopathic. However, some cases may be secondary to infectious, inflammatory or neoplastic disease.

Secondary Findings

- The urinary bladder debris could be consistent with cells, crystals, lipid droplets and/or exfoliated material.
- The prostate changes are most consistent with benign prostatic hyperplasia. Bacterial prostatitis is also a differential but considered unlikely in the absence of lower urinary tract signs.
- The mild hepatomegaly is likely secondary to benign age-related change (i.e., vacuolar hepatopathy). However, Correlation with the patient's liver values is recommended.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Further diagnostic and treatment recommendations are to be implemented by Dr. Cara Steele.





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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