



PATIENT PRESENTING CLINICAL SIGNS

Miko Delgatto
History: Slowly increasing kidney enzymes on annual bloodwork; PU/PD ~ two weeks ago
Abnormal PE/Chem/CBC/UA Results: PE: WNL CBC: WNL CHEM: BUN 32 (6-31), creat 1.3 (0.5- 1.6), K+ 5.9 (3.6-5.5) UA: prot 1+, struvite crystals 2-3, MA 2-8

SPECIES

Canine

BREED

Poodle Mix

SEX

Neutered Male

AGE

9.20.2005

WEIGHT

11 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Ashley Fatzner

HOSPITAL NAME

Andover AH

REFERRING VET

SVB

INVOICE

11208

DATE

7.7.22

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** is moderately distended. The wall in the region of the apex is mildly thickened (up to 0.44 cm) with an irregular mucosal surface. The wall tapers to a normal thickness as it extends to the cystourethral junction. Luminal contents are mostly anechoic. No cystic calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

The **prostate** is normal in size (0.92 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The **left kidney** is normal size (3.96 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. A few, tiny focus of mineralization are visualized. Trace pyelectasia is present. There is no evidence of hydronephrosis. Renal vasculature is normal.

The **right kidney** is normal size (4.20 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 hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The caudal pole of the **left adrenal gland** is visualized and is normal size (0.42 cm in width) with a normal shape and glandular detail. Surrounding vasculature appears normal.

The region of the **right adrenal gland** is evaluated. No obvious pathology is observed.

Spleen

The **spleen** is normal in size (0.66 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 enlarged with slightly swollen 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 **gall bladder** lumen is moderately distended. The wall is thin and smooth. A small to moderate amount of aggregated, echogenic, partially 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 distended with fluid and suspended echogenic debris and appears hypomotile. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract appears patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discrete masses are not identified. The colonic wall is normal.

Pancreas

A portion of the pancreas is obscured by the gastric distention. In the visualized portion of the right limb, the pancreas is prominent in size and slightly hyperechoic relative to surrounding omental fat and is subtly mottled in appearance. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated.

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

Primary Findings

- Bilateral chronic, age-related renal changes with left nonobstructive nephrocalcinosis
- The mild thickening of the urinary bladder wall at the apex may be secondary to cystitis or may be artifactual due to lack of full repletion. Correlation with the patient's clinical history is recommended.

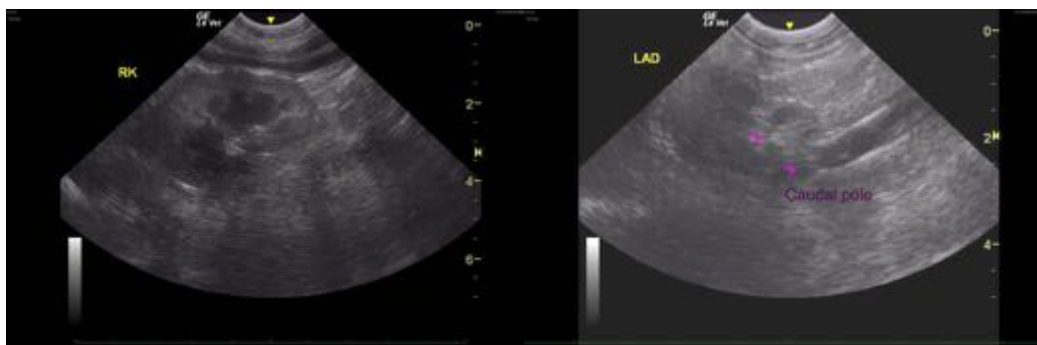
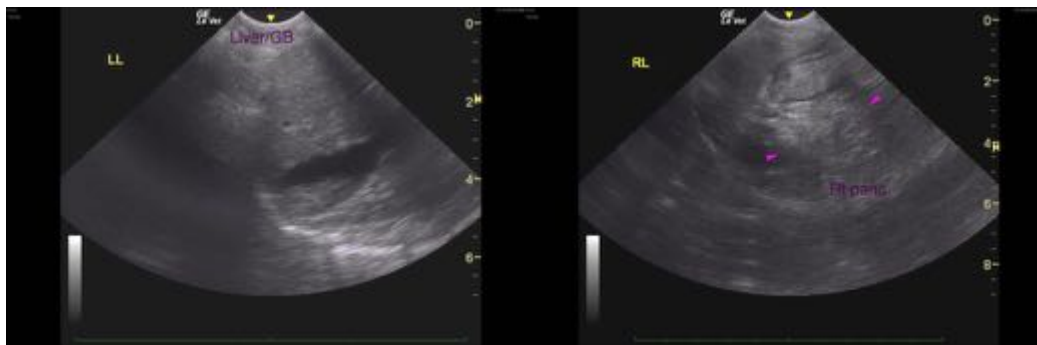
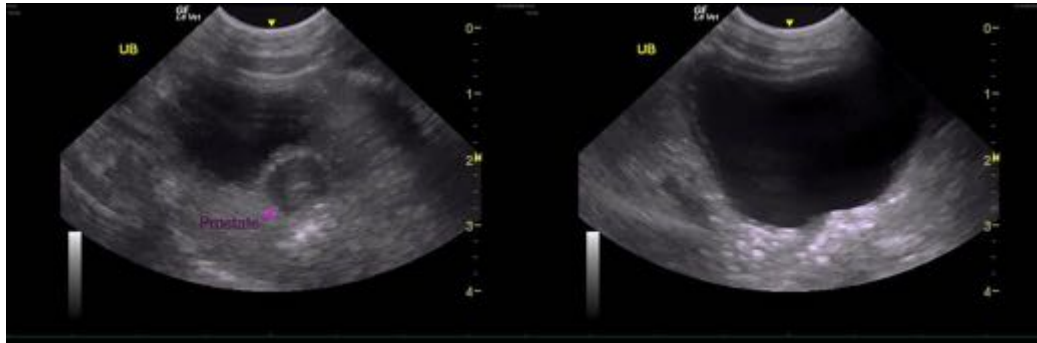
Secondary Findings

- Suspected, benign, diffuse hepatopathy. Vacuolar hepatopathy and regenerative nodular hyperplasia are the top differentials. However, correlation with the patient's liver values is recommended.
- The gastric luminal distention may represent focal ileus or a recent ingestion of a large amount of water. Again, correlation with the patient's history is recommended.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the patient's recent lab-work results, consider the following:

1. UPC
2. Urine culture and sensitivity
3. Baseline blood pressure measurement
4. Transition to a prescription renal diet, if the patient will tolerate it
5. Serial monitoring (i.e., every 2-3 months) of the patient's renal values to assess for progressive disease.
6. Given the patient's age, consider thoracic radiographs to assess cardiopulmonary status, particularly if fluid therapy is to be initiated 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.

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