



## PATIENT PRESENTING CLINICAL SIGNS

**Buddy Vranizan** History: weight loss, vomiting, intermittent loose stool, dry/dull coat seizures dx in 2/2022 - started on phenobarb, then transitioned to keppra + KBr; currently seizures are somewhat stable

**SPECIES** Abnormal PE/Chem/CBC/UA Results: Sodium 154 (142-152) Calcium 7 (8.4-11.8) chloride 133 (108-119) AG 7 (11-26) TP 3.3 (5.5-7.5); was 5 Albumin 1.2 (2.7-3.9); was 2.4 Globulin 2.1 (2.4-4) A/G ratio 0.6 (0.7-1.5) AST 67 (16-55) Cholesterol 113 (337-131-345) Amylase 1827 (337-1469) Lipase 559 (0-250) CK 659 (10-200) glucose 90 (63-114) T4 1.2 (1-4) CBC MCV 78 (59-76) MCH 27 (21.9-26.1) Neutrophils 13022 (2940-12670) UA USG 1.008 pH 8.5 blood 1+ 2+ protein ketones, bacteria, crystals negative trace glucose UPC test pending today Bile acids and GI panel planned for tomorrow on fasted blood sample

## BREED

Labradoodle

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### SEX *Urinary System*

Neutered Male

The **urinary bladder** wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. A scant amount of suspended, echogenic 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

10 years

The **prostate** is normal in size (1.56 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

### WEIGHT

52 lbs

The **left kidney** is normal size (6.44 cm in length); with a slightly irregular shape. The cortex is variably thickened and heterogenous in appearance. The cortex is mildly heterogenous in appearance. A cortical infarct is observed at the caudal pole. Trace pyelectasia is present. There is no evidence of nephroliths, or hydroureter.

## INTERPRETED BY

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

The **right kidney** is normal size (7.57 cm in length); with a slightly irregular 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. Trace pyelectasia is present. A cortical infarct is suspected at the caudolateral aspect. There is no evidence of nephroliths or hydroureter.

## IMAGING PERFORMED BY

Christina Sutton

### *Adrenal Glands*

The caudal pole of the **left adrenal gland** is visualized and is normal in size (0.54 cm in width) with a normal shape, glandular echogenicity and detail. Surrounding vasculature are normal.

## HOSPITAL NAME

Sherwood Family PC

The **right adrenal gland** is normal size (1.21 cm at cranial pole) (0.53 cm at caudal pole); 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. Christina Sutton

### *Spleen*

The **spleen** is normal in size (1.84 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.

## INVOICE

11311

### *Liver*

The **liver** is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen with minor changes consistent with age-related remodeling. No focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion.

## DATE

8.3.22

The **gall bladder** lumen is moderately distended. The wall is thin and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal/not seen.

### ***Gastrointestinal***

The **gastric lumen** is mildly to moderately distended with ingesta. 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 segmentally dilated with chyme. 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. The lumen of the descending colon contains liquid-appearing fecal material. There is no obvious 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.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- Given the clinical history, a protein-losing enteropathy is suspected. Top differentials include inflammatory bowel disease, lymphangiectasia, infectious/parasitic disease or infiltrative neoplasia (less likely). If the patient was fasted for this study, the presence of ingesta within the gastric lumen would suggest delayed gastric emptying.

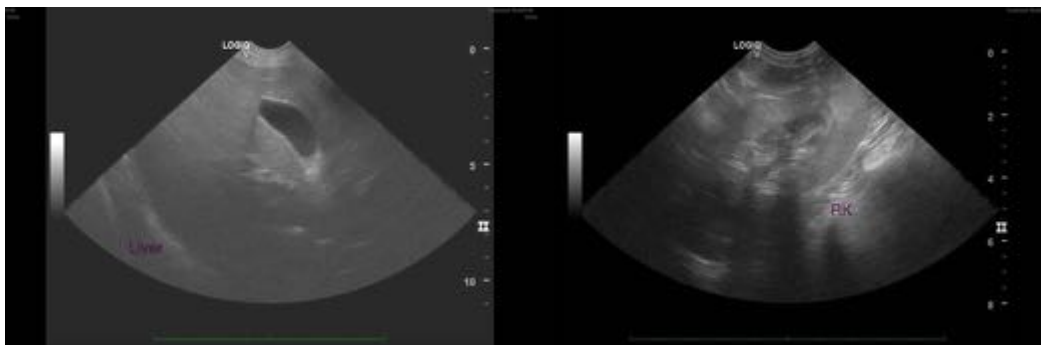
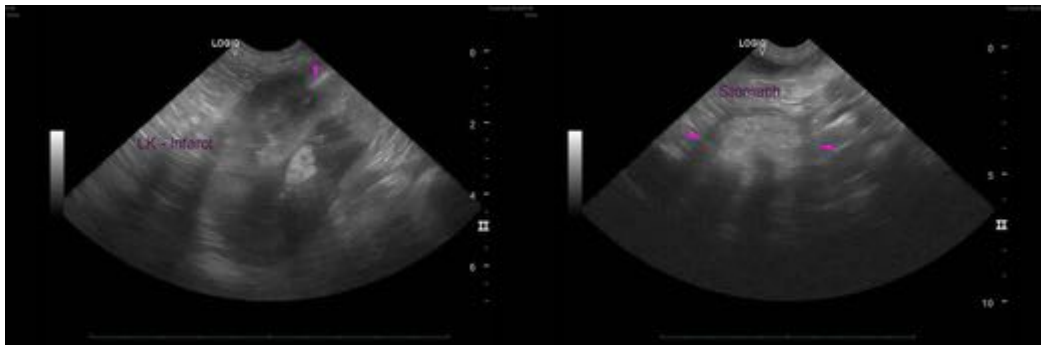
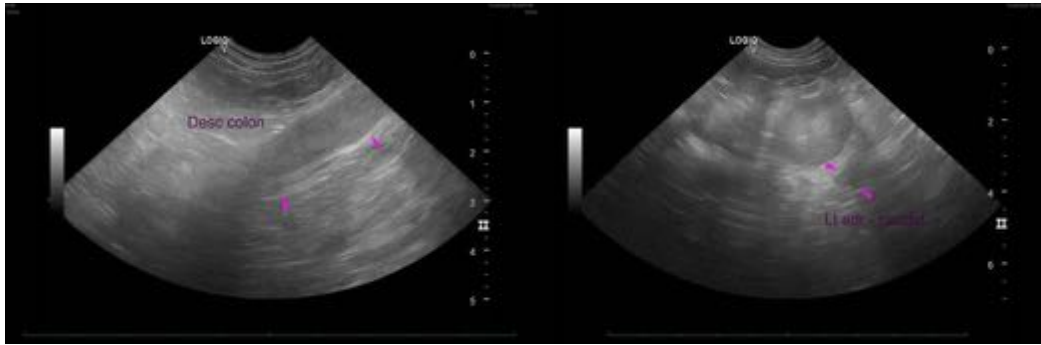
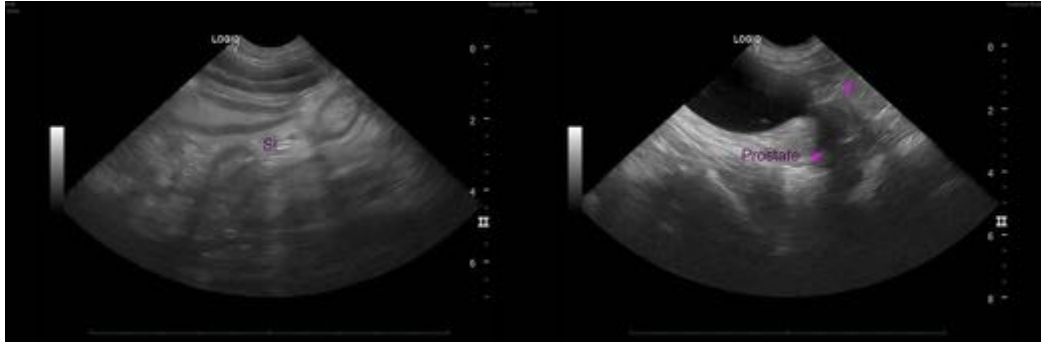
### **Secondary Findings**

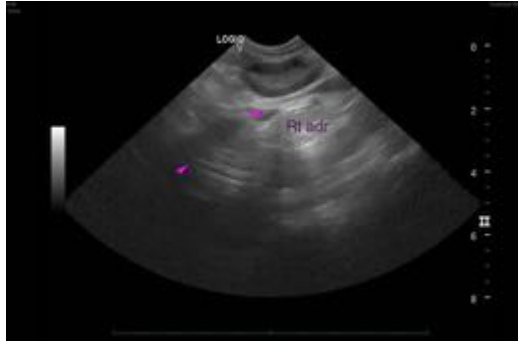
- Bilateral chronic, age-related renal changes with cortical infarcts.
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.

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

In addition to the pending diagnostics, consider a resting cortisol level to screen for hypoadrenocorticism, a fecal evaluation for ova and Giardia, prophylactic deworming with fenbendazole and a low-fat hypoallergenic diet trial.

Ultimately, endoscopic or surgical gastrointestinal biopsies may be necessary to get a definitive diagnosis. If pursued, thoracic radiographs (three-view) are recommended to assess cardiopulmonary status prior to anesthesia.





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](mailto:info@SonoPath.com)