

**DATE PRESENTING CLINICAL SIGNS**

5/4/2022

P had hx of mild to moderate elevation in liver values which have resolved on latest BW but also has had 4 month hx of coughing- did note tracheal collapse on rads but also noted tracheal deviation to the right- no notable heart murmur.

**PATIENT**

Berlin Buonomo

Current Medications: hydrocodone liquid 0.18mL BID, Theophylline 100mg/mL 0.4mL BID.

Lab Results: See attached.

Radiographs: See attached.

**SPECIES**

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Canine

Stat Report: Not requested.

**BREED**

Imaging Performed By: Stephanie Pearce RDCS, RVT.

Pomeranian

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****SEX****Urinary System**

Intact Female

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder is mildly distended. Luminal contents are mostly anechoic. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 1-2 cm, are normal.

**AGE**

3/6/2012

The left kidney presented normal size (3.30 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. Mild pyelectasia is present (0.23 cm in the transverse plane). There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**WEIGHT**

9.61 lbs

The right kidney presented normal size (3.69 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. Mild pyelectasia is present (0.29 cm in the transverse plane). There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**INTERPRETED BY**

Andrea Nicastro, DMV,  
Diplomate DACVIM  
(Small Animal  
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**Adrenal Glands**

The left adrenal gland is normal size (0.43 cm at cranial pole) (0.48 cm at caudal pole) (1.45 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**

Northwind Animal  
Hospital

The right adrenal gland is normal size (0.50 cm at cranial pole) (0.42 cm at caudal pole) (1.60 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. Repsher

**Spleen**

The spleen is normal in size (0.86 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**

10851

**Liver**

The liver is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is hypoechoic 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 amount of aggregated echogenic partially dependent debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

The gall bladder lumen is moderately distended. The wall is thin and smooth. A small to moderate amount of stranding/suspended echogenic debris is observed within the lumen. The cystic and common bile ducts are normal.

### ***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 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 ileocecolic junction is normal. An approximately 3.50 cm segment of transverse colon is mildly to moderately thickened (up to 0.50 cm) with retention of the normal layering pattern. The remaining colonic wall is normal. There is no evidence of an obstructive pattern.

### ***Pancreas***

The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

### ***Free Abdomen***

There is no evidence of free fluid. A 0.35 cm colic lymph node is visualized.

### ***Other***

The uterus is visible and is normal in size (0.58 cm in width). No obvious pathology is observed.

The left ovary is subjectively enlarged. A 1.79 x 1.21 cm anechoic cyst occupies the parenchyma, almost in its entirety, and causes capsular expansion.

The right ovary is normal in size (0.94 x 0.38 cm). No obvious pathology is observed.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- Suspected benign diffuse hepatopathy (i.e., age-related remodeling, vacuolar hepatopathy and/or regenerative nodular hyperplasia).
- The stranding gall bladder could be consistent with cholestasis, fasting or early mucocele formation.
- The focal colonic wall thickening is most consistent with an inflammatory process, with a lower possibility of emerging neoplasia.

### **Secondary Findings**

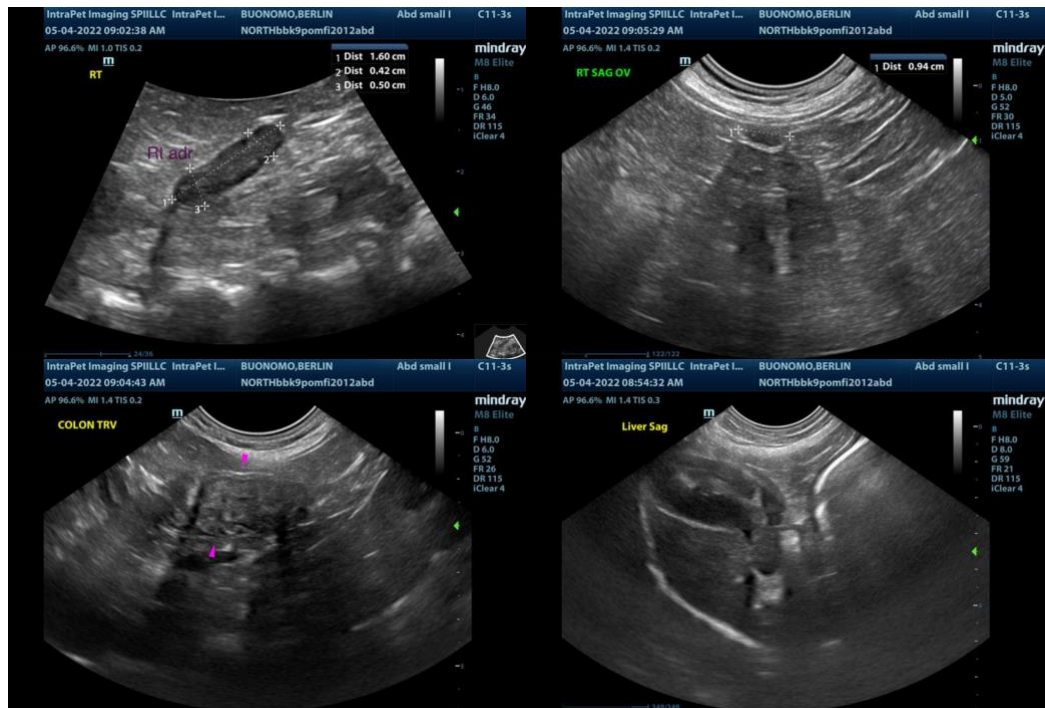
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

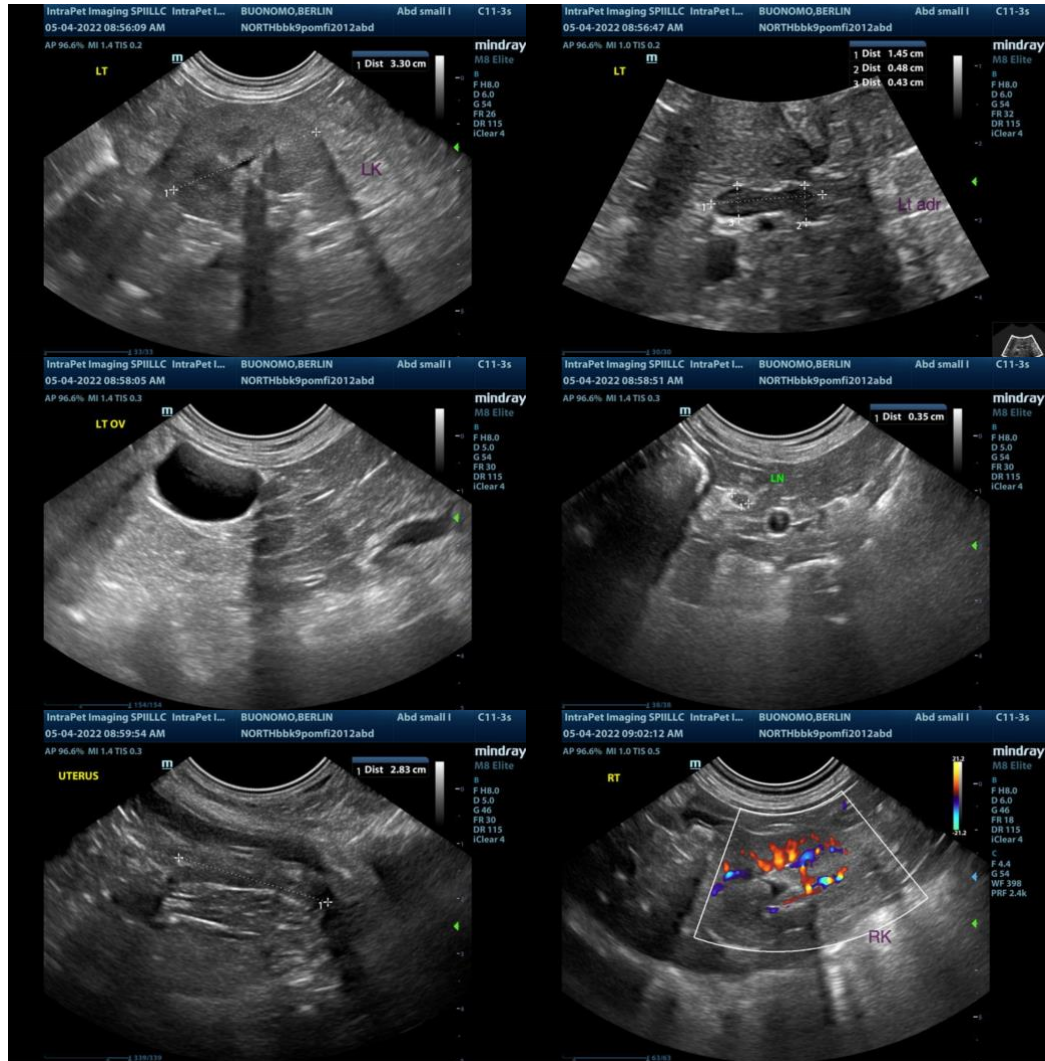
- Bilateral age-related renal changes with trace pyelectasia
- Cystic left ovary, likely incidental.

### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Serial monitoring (i.e., every 3-4 month) of the patient's liver values is recommended. If liver values continue to increase, a repeat abdominal ultrasound +/- hepatic tissue sampling may be warranted.

Given the gall bladder changes, consider a repeat ultrasound in 3-4 weeks, preferably 2 hours following a small meal. If findings are similar to the current scan, consider initiation of ursodiol therapy.





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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