

**DATE**

2/16/2022

**PRESENTING CLINICAL SIGNS**

History: chronic diarrhea starting 10/21. Not responsive to Metronidazole/Provable, on hydrolyzed protein diet.

**PATIENT**

Charlie Funk

Lab Results: bloodwork pending, fecal neg 11/20.  
 Date of Previous IntraPet Ultrasound: No previous IntraPet scans.  
 Sedation: Patient sedated with Telazole.  
 Stat Report: Not requested.  
 Imaging Performed By: Andi Parkinson, RDMS.

**SPECIES**

Canine

**BREED**

Jack Russell Terrier

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****SEX**

Male Neutered

**Urinary System**

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. 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**

9-7-2010

The prostate is normal in size (0.79 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

**WEIGHT**

11 lbs

The left kidney is normal size (4.03 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 hyperechoic medullary band is observed adjacent to the corticomedullary junction. Several nonobstructive nephroliths are present. There is no evidence of pyelectasia infarcts or hydroureter.

**INTERPRETED BY**

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

The right kidney is normal size (3.66 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 hyperechoic medullary band is observed adjacent to the corticomedullary junction. Several nonobstructive nephroliths are present. There is no evidence of pyelectasia infarcts or hydroureter.

**HOSPITAL NAME**

Northwind AH

**Adrenal Glands**

The left adrenal gland is normal size (0.52 cm at cranial pole) (0.55 cm at caudal pole) (1.76 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. Miller

The right adrenal gland is normal size (1.04 cm at cranial pole) (0.43 cm at caudal pole) (1.24 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**

10387

**Spleen**

The spleen is normal in size (1.02 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 normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic 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. The portal vein to caudal vena cava ratio is approximately 1: 1.

The gall bladder lumen is moderately distended. The wall is thin and smooth. A small to moderate amount of echogenic to mineralized debris, most of which is gravity dependent, and some of which is suspended, is observed within the lumen contents are anechoic. 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 colonic wall is normal. No obstructive or overt infiltrative disease is noted.

### **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**

A focal area of reactive mesentery is observed in the midabdominal region. No free fluid is observed. The abdominal lymph nodes are normal/not visible.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- The reactive mesentery is suggestive of focal peritonitis, likely secondary to low-grade bowel inflammation.

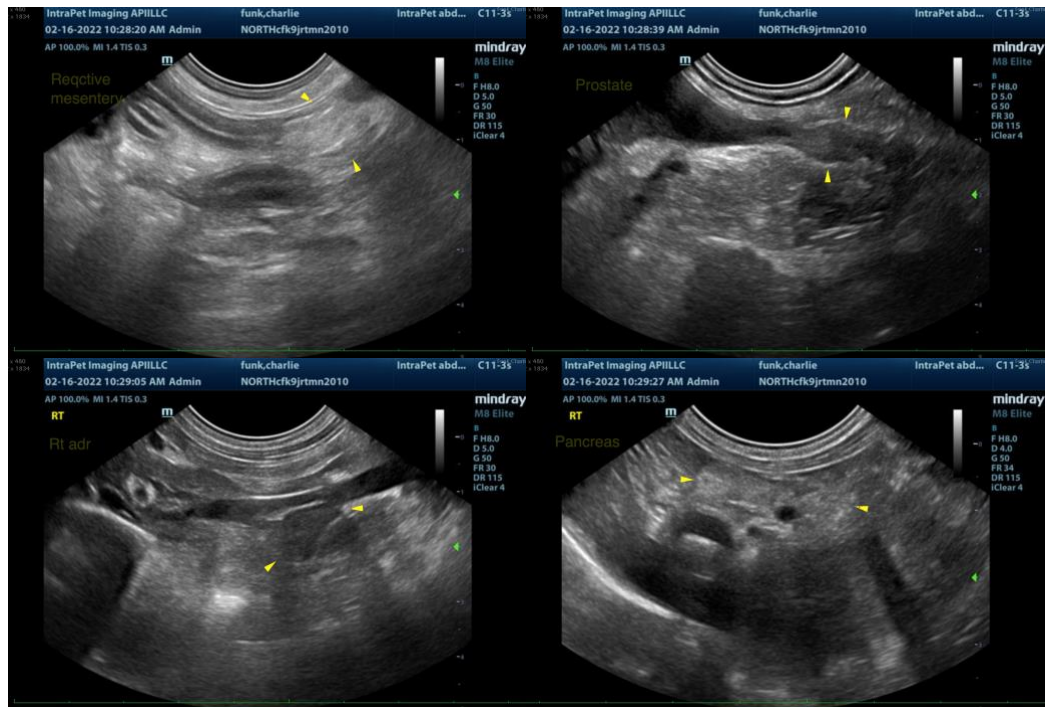
### **Secondary Findings**

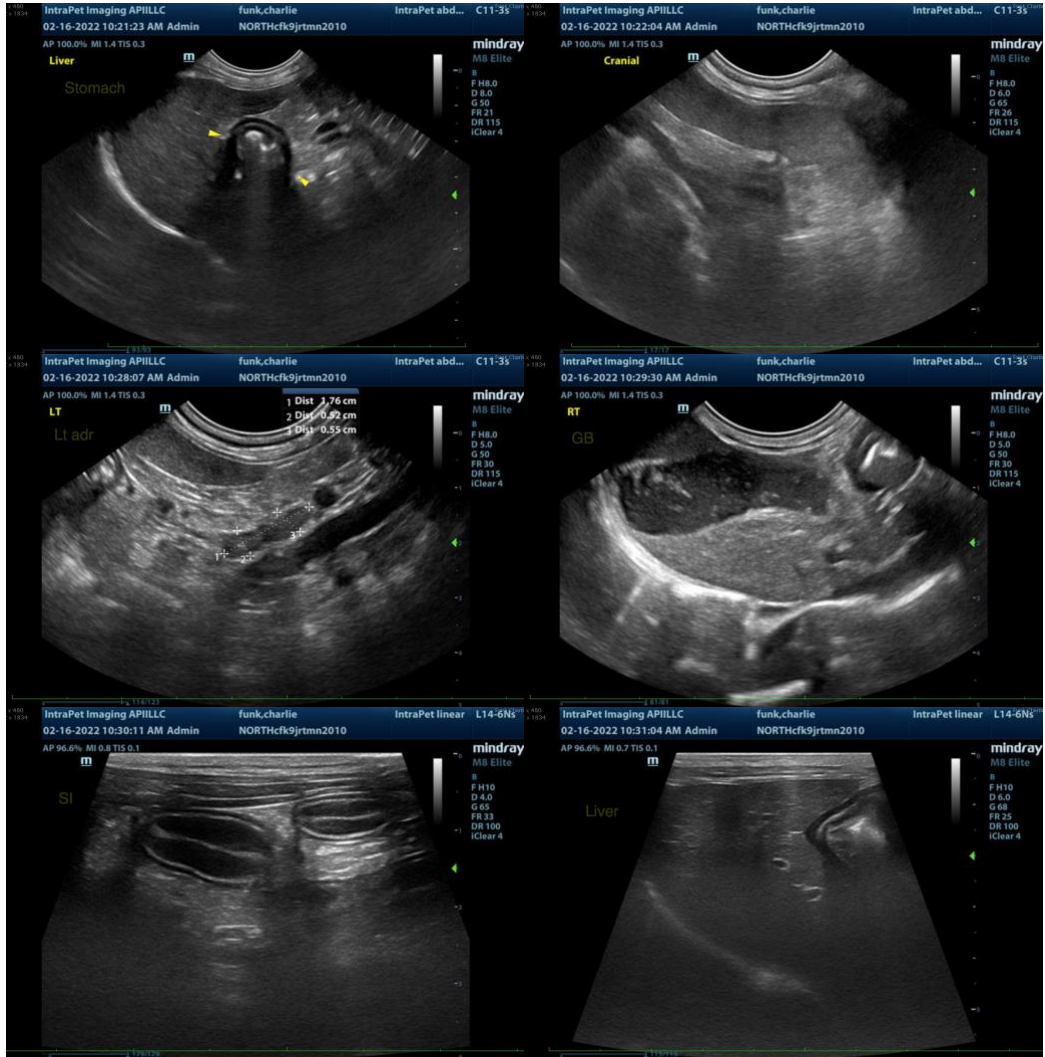
- Bilateral degenerative renal changes with nonobstructive nephrolithiasis.
- The hepatic changes are consistent with age-related parenchymal remodeling and are not considered clinically significant at this time.
- Age-related pancreatic remodeling +/- fibrosis. Concurrent low-grade pancreatitis is also possible, particularly if the patient exhibits cranial abdominal pain on palpation.

\*\*An obvious cause for the patient's chronic diarrhea is not identified in this study. Differentials include microscopic gastrointestinal disease (i.e, infectious/parasitic, intestinal dysbiosis, food allergy, inflammatory bowel disease), mild pancreatitis, underlying metabolic issue, other.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Consider prophylactic deworming with Fenbendazole despite the negative fecal evaluation.
- Also consider a fecal PCR infectious disease panel.
- Given that the patient is not responding to Metronidazole, consider a 4-week course of Tylosin as empirical treatment for small intestinal bacterial overgrowth.
- A resting cortisol level to screen for hypoadrenocorticism. If resting cortisol level is  $< 2.0$  mcg/dL, an ACTH stimulation test is recommended.
- GI Panel (send to Texas A&M)
- If the above diagnostics are inconclusive and the diarrhea persists, BI biopsies (i.e. endoscopic or surgical) may be necessary to get a definitive diagnosis. Given the patient's age, three-view thoracic radiographs should be performed 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, DVM, Diplomate DACVIM (Small Animal Internal Medicine)**  
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