

**DATE PRESENTING CLINICAL SIGNS**

4/6/2022

**PATIENT**

Ellie Harmon

**SPECIES**

Canine

**BREED**

Miniature Schnauzer

**SEX**

Spayed Female

**AGE**

3/16/2009

**WEIGHT**

10.2 lbs

**INTERPRETED BY**
 Andrea Nicastro, DMV,  
 Diplomate DACVIM  
 (Small Animal  
 Internal Medicine)
**HOSPITAL NAME**

Banfield Towson

**REFERRING VET**

Dr. Lewis

**INVOICE**

10700

Presenting complaint : Chronic diarrhea. History: pet has an extensive history of GI issues. Historically pet had chronic vomiting which has resolved over the past year with prescription GI food. For the past 2 months pet has had consistent diarrhea (history of sporadic diarrhea until that point). Nonresponsive to medications. BAR, Wt: 9.80 lbs. / 4.45 kgs, BCS: 5/9, Eyes: Dry Eye (OU), chronic, Ears: Unremarkable, Nasal and Oral Cavity: No nasal discharge. Significant dental tartar (3/4), Gingival Recession, PLN: WNL, Heart/Lungs: Grade 4/6 heart Murmur. Eupneic, lungs clear., Abdomen: Soft, non-painful. No palpable masses, U/G: Normal external genitalia. No discharge, Musculoskeletal: Ambulatory x4 with not appreciable lameness, Integument: Grossly normal, Neuro: Appropriate mentation. Full neurologic exam not performed, Rectal: soft stool with frank blood.

Current Medications: Nonresponsive to Metronidazole at a 20 mg/ml dosage, Non responsive to Cerenia 12 mg daily. Currently on daily Provable. Has been on RC gastrointestinal for the past year.

Lab Results: Superchem/CBC 12/14/21: WNL, Urinalysis 2/11/22: WNL

CPL 2/11/22: normal, Fecal and float and fecal smear 2/11/22: normal, Giardia snap 2/11/22: negative.

Date of Previous IntraPet Ultrasound: 3/31/21. See attached.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Andi Parkinson, RDMS.

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

The urinary bladder is mildly distended. The wall in the region of the apex is thickened (up to 0.44 cm), with an irregular mucosal surface. The wall tapers to a normal thickness as it extends towards the cystourethral junction. A small amount of suspended echogenic debris is observed within the lumen. No cystic calculi are observed. The region of the trigone and the visualized portion of the proximal urethra are normal.

The left kidney presented normal size (4.21 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. Several nonobstructive nephroliths are visualized. Trace pyelectasia is present. There is no evidence of infarcts or hydroureter.

The right kidney presented normal size (3.99 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is borderline enlarged (0.57 cm at cranial pole) (0.57 cm at caudal pole) (1.80 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.

The right adrenal gland is normal size (0.84 cm at cranial pole) (0.53 cm at caudal pole) (1.91 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.

### ***Spleen***

The spleen is normal in size (1.37 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A 1.32 x 0.84 cm heterogenous nodule with cavitated areas is observed near the craniolateral aspect. In addition, at least myelolipoma is seen.

### ***Liver***

The liver is subjectively prominent in size with swollen curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and exhibits mild heterogeneity. A 0.86 cm anechoic cyst is observed at the cranial aspect, near the diaphragm. 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 moderate amount of aggregated, echogenic debris/sludge is observed within the lumen, most of which is gravity dependent, and some of which is suspended. 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***

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

### ***Other***

A brief echocardiogram reveals no evidence of pericardial effusion.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

\*\*An obvious cause for the patient's gastrointestinal signs is not identified in this study. Considerations include microscopic gastrointestinal disease (inflammatory bowel disease, intestinal dysbiosis, food allergy/intolerance), low-grade pancreatitis, underlying metabolic issue.

### **Secondary Findings**

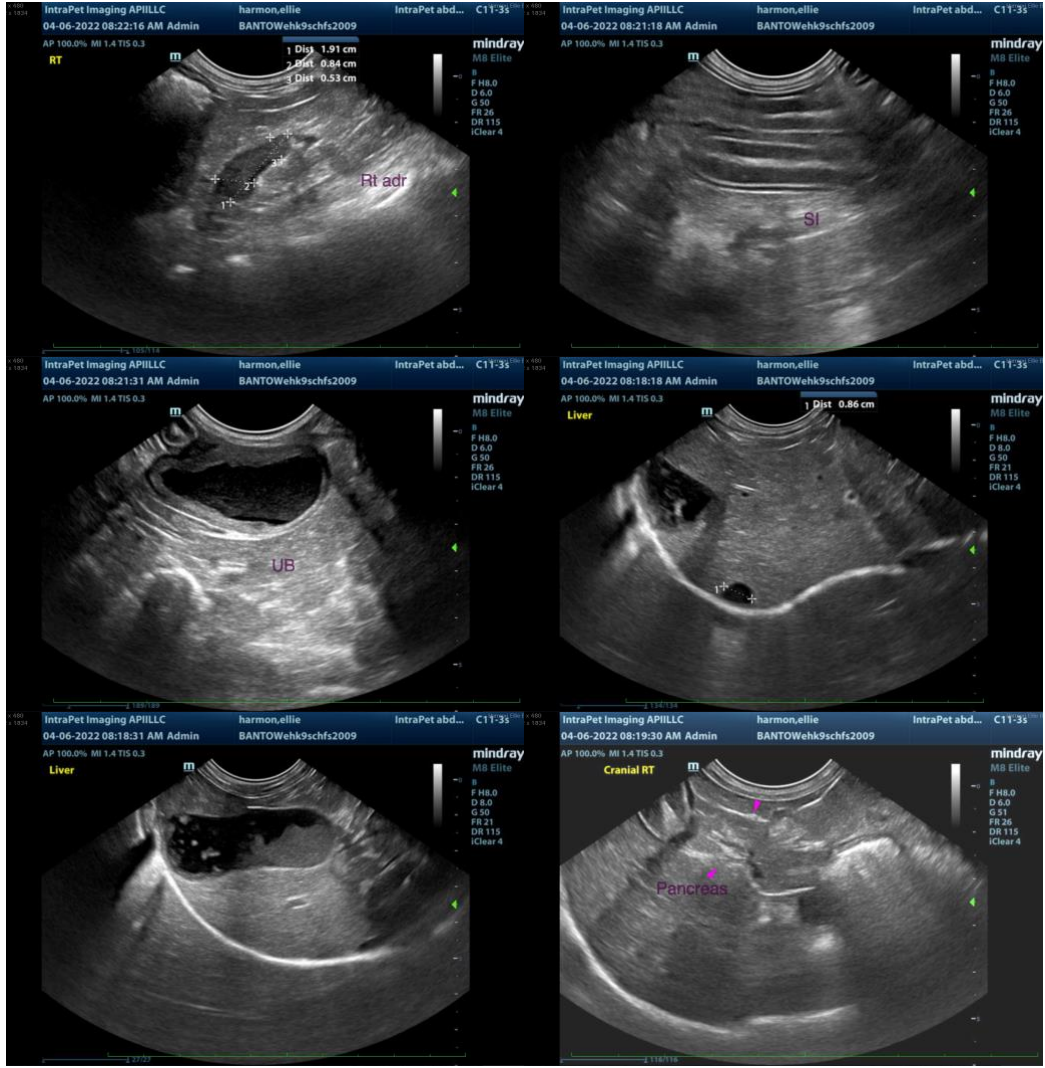
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.
- Gall bladder debris-sludge – non-mucocele

- Age-related pancreatic remodeling in the right limb
- The splenic nodule observed today is similar in size, compared to the previous sonograph. Differentials include a slow-growing tumor or a benign process (i.e., myelolipoma with cystic areas, other).
- Suspected benign diffuse hepatopathy (i.e., regenerative nodular hyperplasia and/or vacuolar hepatopathy).
- Bilateral age-related renal changes with nonobstructive nephrocalcinosis
- The urinary bladder wall changes could be consistent with cystitis or may be artifactual, due to lack of full repletion. Correlation with clinical findings is recommended.

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

Given the patient's GI signs, consider the following:

1. Prophylactic deworming with fenbendazole (if not already performed)
2. Six-week hypoallergenic diet trial
3. GI panel including serum cobalamin and folate, TLI and PLI
4. A resting cortisol level can be considered to screen for hypoadrenocorticism. However, given the adrenal sizes, this differential is considered less likely.
5. Ultimately, endoscopic or surgical gastrointestinal biopsies may be necessary to get a definitive diagnosis. Given the patient's age, three-view thoracic radiographs are recommended prior to any anesthetic event.





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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