

**DATE PRESENTING CLINICAL SIGNS**

10/18/21

History: Diarrhea for 6 months, non-responsive to antibiotic; fecal float negative. No vomiting though. There is no weight loss associated. Dog has been on hypoallergenic food.

**PATIENT**

Chloe McDonald

Current Medications: Metronidazole 250mg 1/2-tab BID with food, Cerenia 16mg 1 tab SID on empty stomach for 4 days, Famotidine 10mg 1 tab SID for 10 days, I/D food.

Lab Results: Not provided by the veterinarian.

Radiographs: Whole body x-ray. Possible small GI stomach foreign body. May be a clip. GI tract is very inflamed no mass effect or sign of GI obstruction.

**SPECIES**

Canine

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Not needed.

Stat Report: Not requested.

**BREED**

Boston terrier

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

8/25/2011

The left kidney is normal size (5.11 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**WEIGHT**

26.5 lbs.

The right kidney is normal size (4.76 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**INTERPRETED BY**

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

**Adrenal Glands**

The left adrenal gland is normal size (0.39 cm at cranial pole) (0.53 cm at caudal pole) (2.01 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**

Glen Burnie AH

The right adrenal gland is normal size (0.46 cm at the cranial pole) (0.55 cm at caudal pole) (1.71 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. Shah

**Spleen**

The spleen is normal in size (1.07 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. 1-2 small myelolipomas are observed in the region of the hilus. Splenic vasculature is normal.

**INVOICE**

12367

**Liver**

The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of suspended echogenic debris 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 not distended. 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 not dilated. In one short segment, a thin hyperechoic linear structure is observed within the lumen. The small intestinal wall is normal to mildly thickened (up to 0.54 cm) with a normal layering pattern. There is increased mucosal echogenicity and linear striations in some segments. Discreet masses are not identified. The ileocecal colic junction and colonic wall are normal. No obvious obstructive 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***

Areas of reactive mesentery are observed throughout the abdomen. Trace free fluid is observed. A 1.17 cm slightly cystic lymph node is observed adjacent to the ileocecal colic junction.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings:**

- Bowel pattern could be consistent with lymphangiectasia, inflammatory bowel disease, infectious/parasitic disease, emerging neoplasia or some combination thereof. The intraluminal thin hyperechoic structure could be consistent with linear foreign material or may be an imaging artifact. Regardless, there was no obvious evidence of obstruction.
- Areas of peritonitis are suspected, likely secondary to bowel pathology.
- The prominent mesenteric lymph node is likely reactive with a lower possibility of emerging neoplasia.

### **Secondary Findings:**

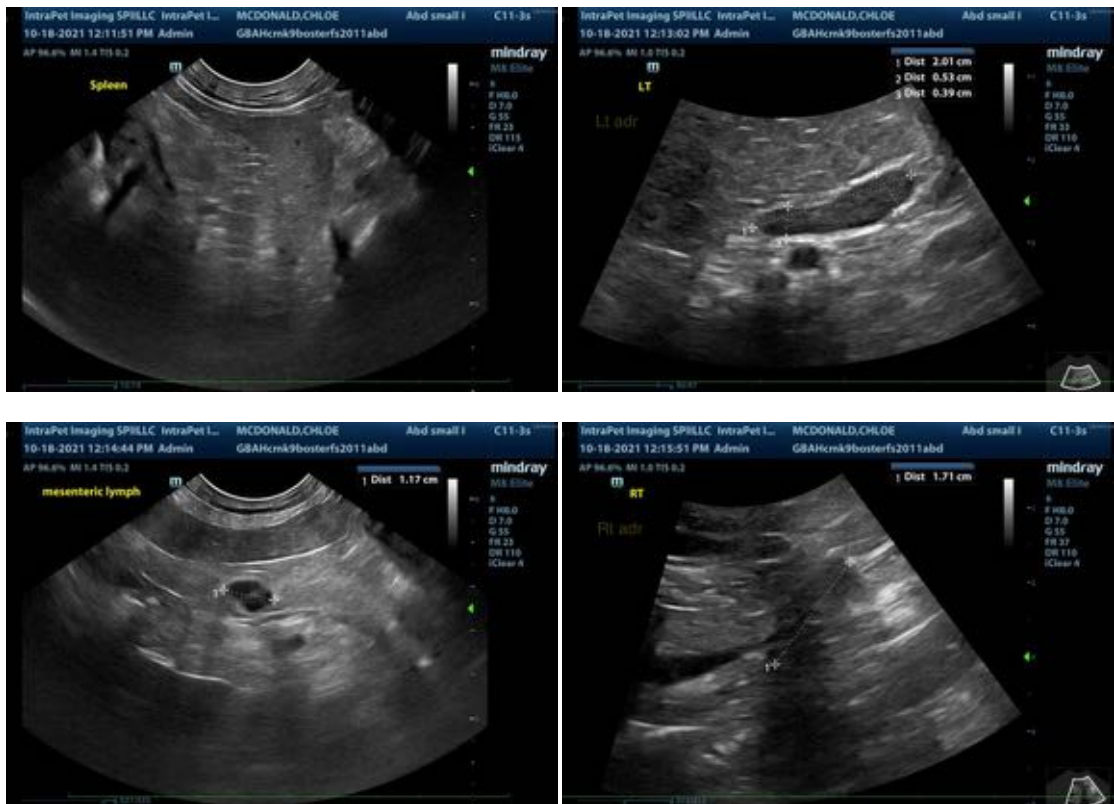
- Gallbladder debris, incidental.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Minor age-related renal changes.

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

Baseline labwork including a CBC chemistry panel, urinalysis and T4 is recommended if not already performed. Other diagnostic considerations include the following:

1. GI panel including serum cobalamin, folate, TLI and PLI.
2. Despite negative fecal evaluation, prophylactic deworming with Fenbendazole at 50 mg/kg once a day for 5 days is recommended. Repeat above protocol in 3 weeks.

3. A resting cortisol level to screen for hypoadrenocorticism. If resting cortisol level is  $< 2.0$  mcg/dL, an ACTH stimulation test is recommended.
4. Consider supplementation with a probiotic with a high colony count (i.e., Visbiome or Provable Forte).
5. Also consider switching from Metronidazole to Tylosin as empirical treatment for small intestinal bacterial overgrowth.
6. Depending on the results of the above diagnostics/therapeutics, surgical gastrointestinal biopsies may be necessary to get a definitive diagnosis.
7. 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. 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 ACVIM (*Small Animal Internal Medicine*)  
 Andrea.nicastro@sonopath.com