

**DATE PRESENTING CLINICAL SIGNS**

10/20/21

History: 10/13/2021 Patient presents for PU/PD and severe diarrhea of several weeks duration. History of diarrhea on and off.

**PATIENT**

Atticus Kaplin

Current Medications: Metronidazole 250mg 1.5 BID for 7 days.

Fortiflora 1 packet on food SID x 7 days.

Lab Results: ALT 511, ALK Phos 195, T Bili 0.4, Cchol 342.

**SPECIES**

Date of Previous IntraPet Ultrasound: No previous

Canine

Sedation: not needed

Stat Report: not requested

**BREED**

Golden Retriever

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

Neutered Male

**AGE**

2011

The prostate is not definitively visualized due to its pelvic location.

**WEIGHT**

58 Pounds

The left kidney presented normal size (6.22 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.

**INTERPRETED BY**

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

The right kidney presented normal size (6.13 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 normal size (0.64 cm at cranial pole) (0.50 cm at caudal pole) (2.87 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**

Jacksonville VH

The right adrenal gland is normal size (0.64 cm at cranial pole) (0.59 cm at caudal pole) (2.62 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. Kablis

**INVOICE**

13913

**Spleen**

The spleen is subjectively normal in size (2.60 cm at the level of the hilus) with normal curvilinear peripheral contours. The parenchyma is diffusely mottled in appearance with a few ill-defined hypoechoic nodules, the largest measuring 0.79 cm in diameter. Splenic vasculature is normal with no evidence of thrombosis.

**Liver**

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and mottled in appearance. No distinct focal lesions are observed. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder is of normal contours and contains some gravity dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. 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 small intestinal lumen is gas distended. 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 evidence of obstruction.

### ***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**

- Non-specific diffuse hepatopathy, differentials include inflammatory/immune mediated disease, hepatotoxicosis (i.e., copper), infiltrative neoplasia (less likely), reactive hepatopathy +/- concurrent benign age-related change.

### **Secondary Findings**

- The splenic parenchyma changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis or splenitis with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).

\*An obvious cause for the patients' gastrointestinal signs is not identified in the study. Considerations include primary gastrointestinal disease (i.e., inflammatory bowel disease, food allergy, infection/parasitic), low-grade pancreatitis, underlying metabolic issue (i.e., hepatic disease), other.

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

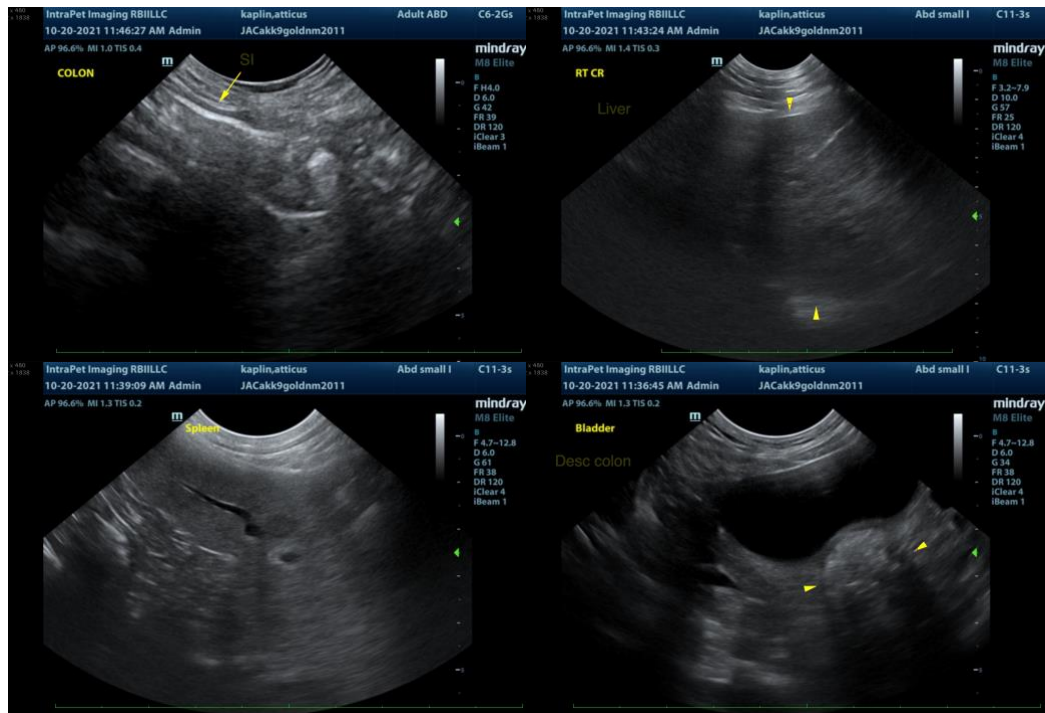
The following diagnostics/treatment recommendations can be considered:

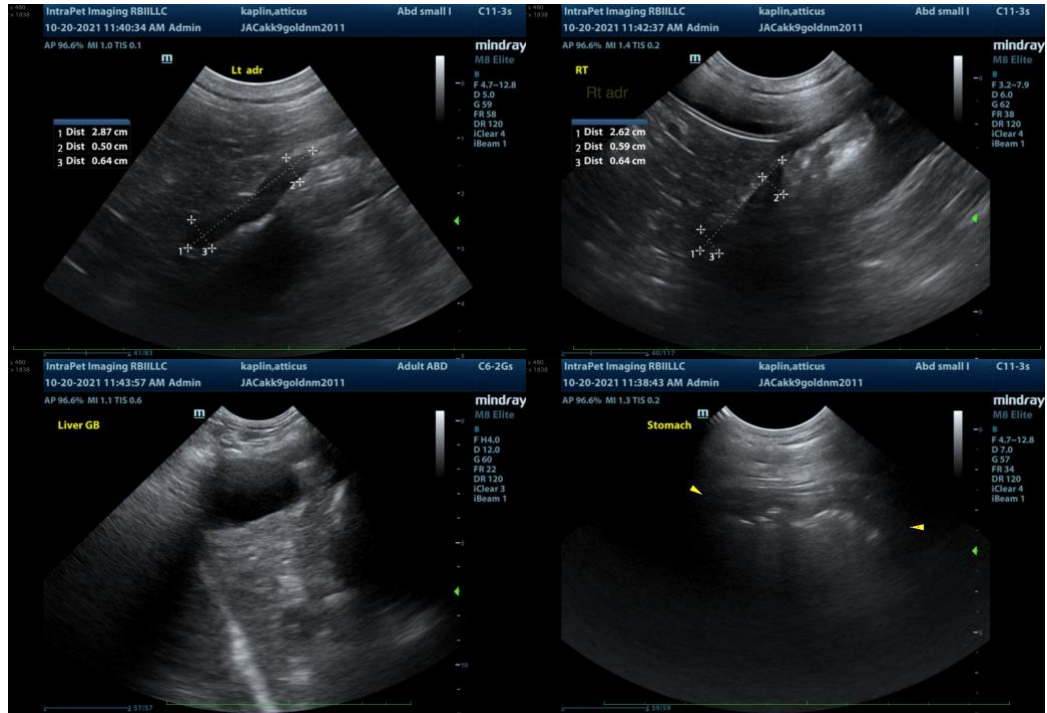
1. Serum cobalamin, folate, PLI and TLI

2. A fecal evaluation for ova/Giardia
3. Prophylactic deworming with Fenbendazole at 50 mg/kg once a day for 5 days is recommended. Repeat above protocol in 3 weeks.
4. A 6-week limited antigen diet trial to assess for food allergies.
5. Consider a 4-week course of Tylosin (in lieu of Metronidazole) as empirical treatment for small intestinal bacterial overgrowth.
6. A resting cortisol level to screen for hypoadrenocorticism. If resting cortisol level is  $< 2.0$  mcg/dL, an ACTH stimulation test is recommended.
7. Depending on the results of the above diagnostics/therapeutics, endoscopic or surgical gastrointestinal biopsies may be warranted.
8. Three-view thoracic radiographs should be performed prior to any anesthetic event.

Regarding the elevated ALT, consider a fine needle aspirate of the liver if clotting status is appropriate. A 25-gauge needle should be used. If surgical gastrointestinal biopsies are pursued at some point in the future, a liver biopsy should also be obtained.

Also consider a fine needle aspirate of the spleen to rule out infiltrative neoplasia.





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.

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