

**DATE**

8/8/22

**PRESENTING CLINICAL SIGNS**

History: Several day hx vomiting/ diarrhea/inappetance. PE wnl other than tacky mm. 5 kg weight loss in past 2 months since p was seen last. Hx PLN managed by IMED service w/ prednisone, clopidogrel, telmisartan, mycophenolate. P has not received mycophenolate since Saturday due to GI upset.

**PATIENT**

Olive Flack

Current Medications: Long term meds--Prednisone 10 mg PO q 24 h, Clopidogrel 37.5 mg PO q 24h, Telmisartan 60 mg PO q 24 h, Mycophenolate 300 mg PO q 12 h (not received in 2 days due to GI issues).

**SPECIES**

Lab Results: Azotemia BUN 96 Creat 28, Isosthenuria. Negative for proteinuria.

Canine

Sending off urine culture and lepto PCR (p is vaccinated against Lepto).

**BREED**

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Requested/Approved.

Imaging Performed By: Stephanie Warga RDCS, RVT.

Shepherd Mix

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

Spayed Female

**Urinary System**

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

**AGE**

9/14/16

Left kidney is normal is size (7.04 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia or infarcts observed. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted

**WEIGHT**

52 Pounds

Right kidney is normal is size (6.69 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia or infarcts observed. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted

**INTERPRETED BY**Beth Johnson, DVM  
DACVIM**Adrenal Glands**

Left adrenal gland is normal in size (2.38 cm long x 0.41 cm at cranial pole and 0.53 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

**HOSPITAL NAME**

Eastern AH

**REFERRING VET**

Dr. Michelotti

Right adrenal gland is normal in size (3.0 cm long x 0.75 cm at cranial pole and 0.77 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

**INVOICE**

16773

**Spleen**

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

**Liver**

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than

normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

### ***Gastrointestinal***

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness and layering. The colon is moderately dilated with anechoic fluid.

### ***Pancreas***

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

### ***Free Abdomen***

The mesenteric lymph nodes prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail. No appreciable free fluid noted in these images.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- The appearance of the colon is consistent with this patient's reported diarrhea
- Reactive mesenteric lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely
- Hyperechoic hepatomegaly – This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible, but considered less likely.
- Gallbladder debris- Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

### **Secondary Findings**

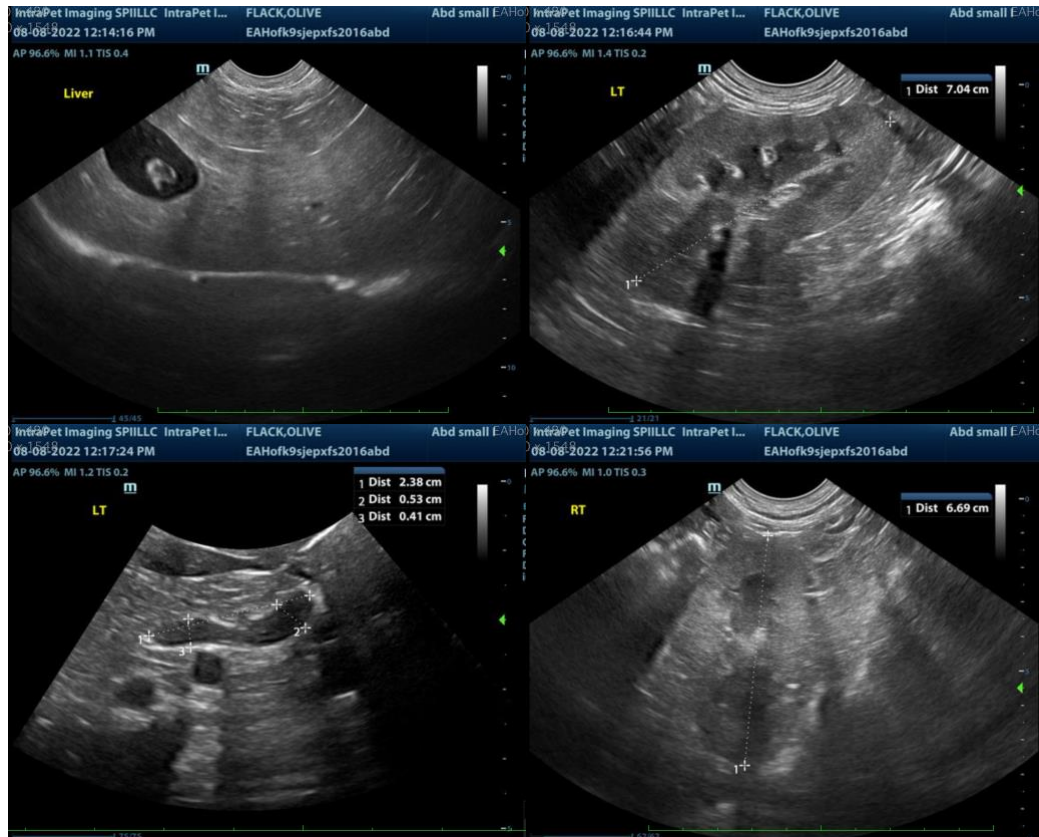
- Nonobstructive dystrophic mineralization bilaterally

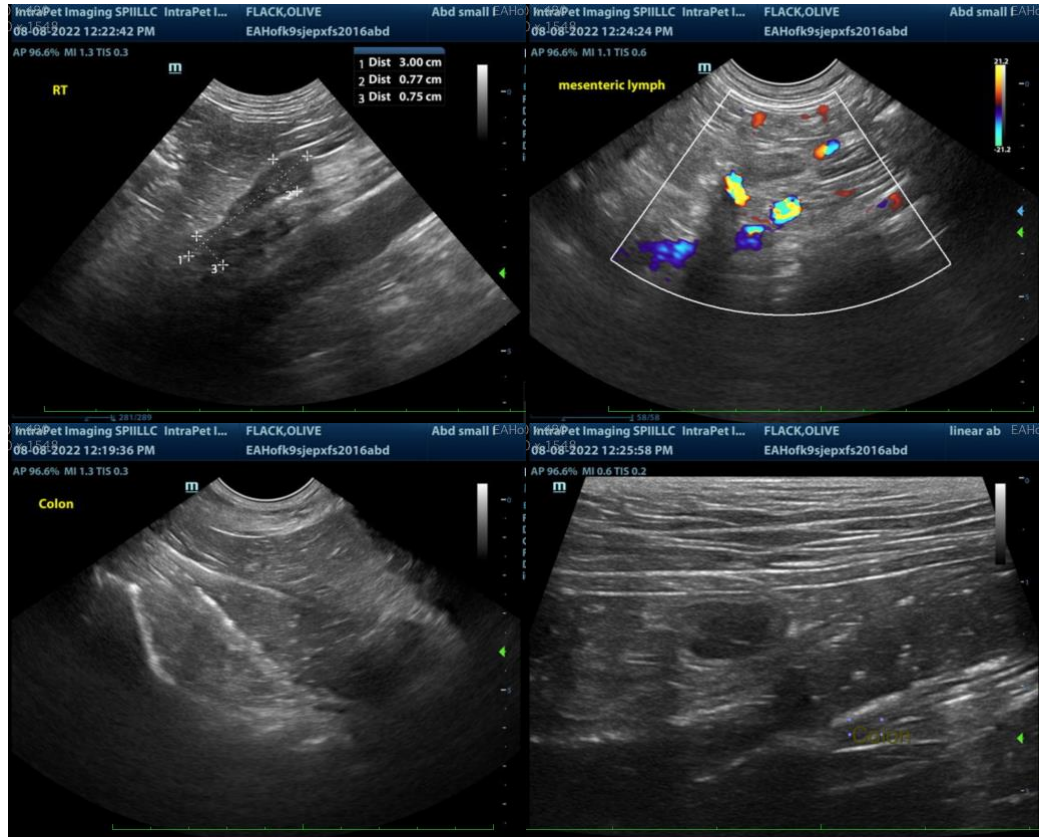
## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the patients reported history and azotemia, testing for leptospirosis and a urine culture, as are currently reportedly already pending, are recommended.

Mycophenolate can cause severe gastrointestinal upset, characterized primarily by diarrhea. Therefore, discontinuation of the mycophenolate until GI signs have resolved, is recommended. Upon resolution, mycophenolate could be restarted potentially at a lower dose with close monitoring for recurrence of GI signs. However, given this patients concurrent reported weight loss, recommendations also include a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

In the meantime, supportive/symptomatic medical management of the GI signs is recommended, including antiemetics, gastroprotectants, appetite stimulant (if necessary), fiber supplementation and a probiotic +/- Metronidazole or Tylosin (if indicated).





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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