

**DATE PRESENTING CLINICAL SIGNS**

6/22/22 Past couple has been lethargic, inappetant and vomiting several times daily. No diarrhea. Pet is indoor only. Went to ER for similar signs in Feb - BW showed elevated BUN, borderline crea/SDMA, w/ insufficient concentration ability, hyperglycemia. Pet has not been pu/pd, drinking normally until past few days.

**PATIENT**

Oliver Gray Current Medications: None listed.

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

8/16/12

**WEIGHT**

8.6 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Rachel Brilhart RDMS

**HOSPITAL NAME**

Eldersburg Vet  
Hospital

**REFERRING VET**

Dr. Alper

**INVOICE**

38989

Lab Results: BW: cbc - mild neutrophilia, mild lymphocytosis and mild/moderate monocytosis r/o stress, inflammatory, infection, neoplasia  
chem: glucose 289 H, BUN 73 H, crea 1.8 wnl, SDMA 16 H, all electrolytes low, K is 2.5, T4 wnl. UA: USG >1.050, protein 30 (may be d/t concentrated sample), glucose 50, otherwise NSF.  
Radiographs: See attached.  
Date of Previous IntraPet Ultrasound: No previous.  
Sedation: Not required to complete full diagnostic ultrasound.  
Stat Report: Not requested.

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

The urinary bladder is moderately 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.

The right kidney is normal in size (3.59 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, mineral or infarcts observed.

The left kidney is normal in size (4.16 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, mineral or infarcts observed.

**Adrenal Glands**

The right adrenal gland is normal in size (0.36 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.48 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**Spleen****Liver**

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

**Gastrointestinal**

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. It is mildly distended with fluid and gas. Pyloric outflow tract appears patent.

The visible small intestine demonstrates areas of thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated. The lumen is empty with no evidence of obstruction or foreign material.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

### ***Pancreas***

The pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and has a mildly irregular undulating contour. Parenchyma is coarse with mixed echogenic remodeling noted. Pancreatic duct dilation is noted at 0.45 cm.

### ***Free Abdomen***

There is no evidence of peritoneal effusion.

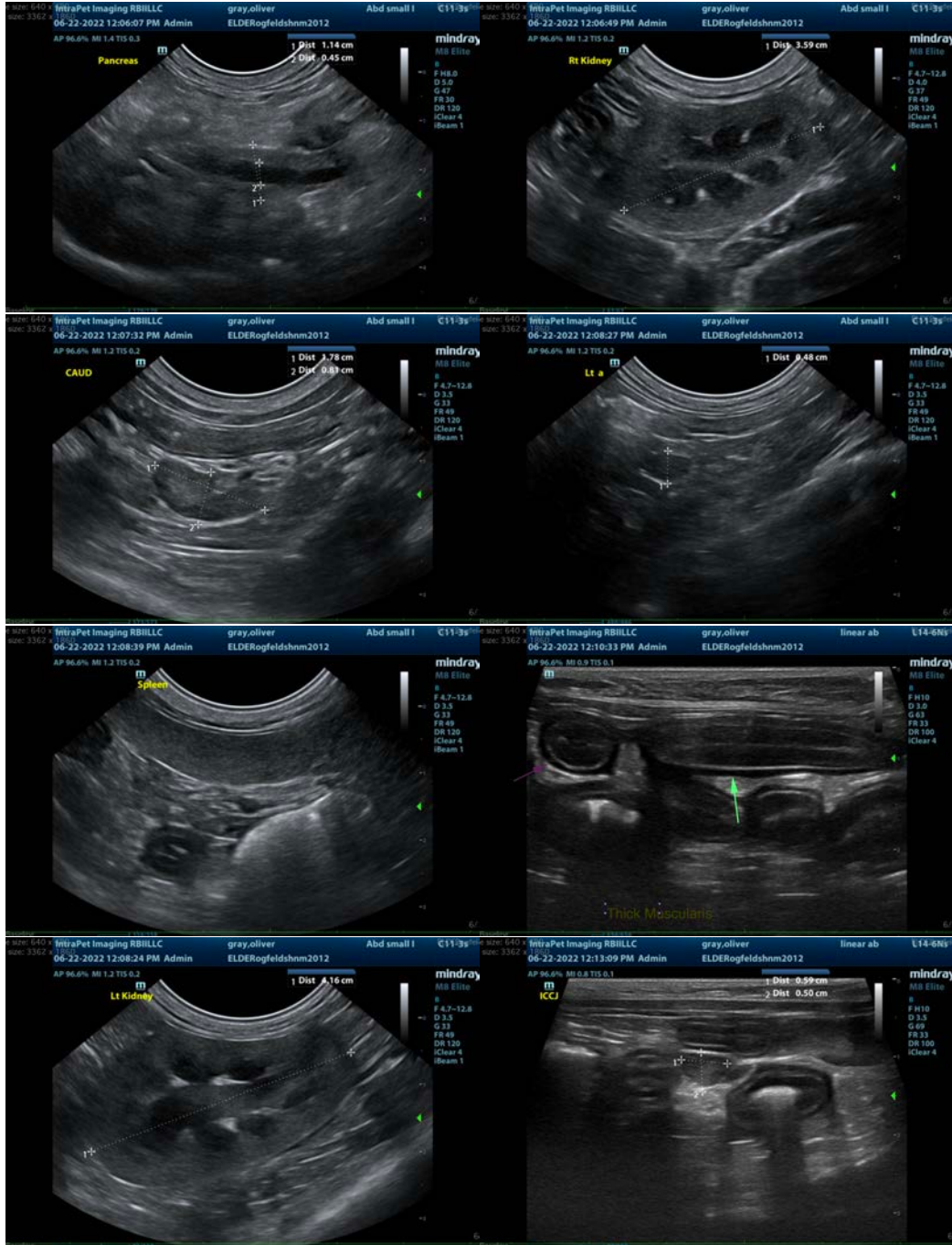
Mesenteric lymph nodes are enlarged with swollen irregular capsular contour and loss of normal length to width ratio (rounded in shape). Nodes are hypoechoic with loss of normal parenchymal detail.

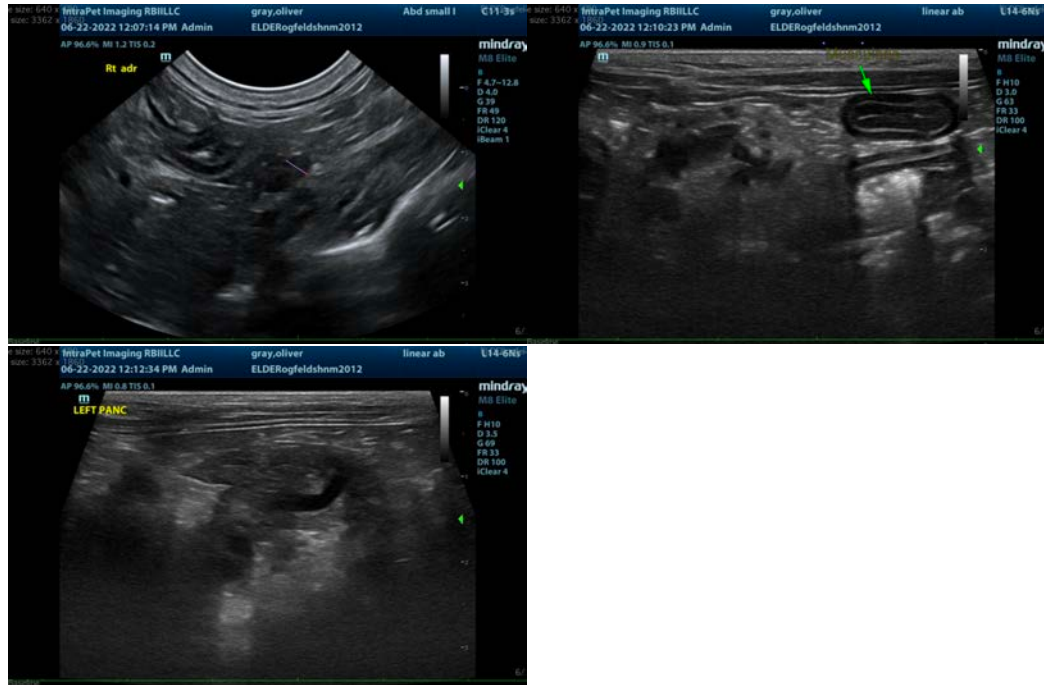
## **ULTRASONOGRAPHIC FINDINGS**

- Diffusely thick muscularis layer relative to the mucosa – this finding has been reported with infiltrative bowel disease, including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma.
- Splenic micronodular hyperplasia – This nodular change is often associated with benign aging nodular hyperplasia. Infiltrative neoplasia, however, round cell neoplasia cannot be ruled out.
- Chronic active pancreatitis
- Mesenteric lymphadenopathy with some characteristics concerning for infiltrative neoplasia. However, benign reactive nodes cannot be ruled out.

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

- A fine needle aspirate of the spleen and the enlarged mesenteric lymph nodes is recommended if patient's coagulation status is appropriate.
- 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, therapeutic recommendations include medical management of pancreatitis with anti-emetics, gastroprotectants, appetite stimulants or nutritional support as needed, pain management, broad spectrum antibiotics, and fluid support. Monitoring of the pancreas with power doppler is recommended to identify possible necrosis as well as other potential sequelae such as abscesses, etc. as well as further investigation of possible diabetes mellitus, given the reported new onset of PU/PD combined with hyperglycemia and glucosuria.
- Pending response to management of pancreatitis, ultimately biopsies of the GI tract, being sure to include ileum if possible, may be necessary to definitively diagnose and therefore manage the infiltrative bowel disease.





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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