**DATE**

6/29/22

**PRESENTING CLINICAL SIGNS**

History: P presented 6/27 for not eating for 2 weeks and losing weight. P was not icteric but has flea dirt on body. Has lost 2lbs in 1 month.

**PATIENT**

Boots Epps

Current Medications: Revolution.

Lab Results: RBC 6.31, HEM 9.7, ALP 184, Bili Total 0.4, Bili Unconj 0.3. UA 3+ protein, 2+ bilirubin.

Date of Previous IntraPet Ultrasound: No previous.

**SPECIES**

Feline

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Declined.

Imaging Performed By: Stephanie Pearce RDCS, RVT.

**BREED**

Tuxedo

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

Urinary bladder is only mildly distended/almost empty. Contents are primarily anechoic contents and occasional echogenic non-shadowing debris. There is some ventral apical wall irregularities/mild thickening, however, this finding is difficult to fully interpret without full bladder distention. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface. If urinary signs are present and/or there is concern for urinary bladder pathology clinically, reassessment complete filling is recommended.

**SEX**

Spayed Female

**AGE**

5/2/16

**WEIGHT**

10.62 Pounds

Left kidney is normal is size (3.71 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.

Right kidney is normal is size (3.57 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.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**Adrenal Glands**

Left adrenal gland is normal in size (0.3 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (0.39 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

**HOSPITAL NAME**

Northwind AH

**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.

**REFERRING VET**

Dr. Jones

**Liver**

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.

**INVOICE**

16395

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 visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. 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 of the small intestine is with no evidence of obstruction or foreign material.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

### ***Pancreas***

The observed pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and irregular in shape with a swollen undulating contour. Pancreatic duct dilation is noted. Enhanced hyperechoic ill-defined surrounding fat is noted.

### ***Free Abdomen***

The cranial abdomen contains a scant amount of anechoic free fluid, as well as markedly enhanced hyperechoic fat surrounding the pancreas, stomach and proximal duodenum.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- Severe acute pancreatitis
- Inflammatory bowel disease pattern. This finding has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. No concurrent lymphadenopathy, loss of layering, etc. is noted to make lymphoma more probably, but lymphoma cannot be definitively ruled out without tissue sampling.

### **Secondary Findings**

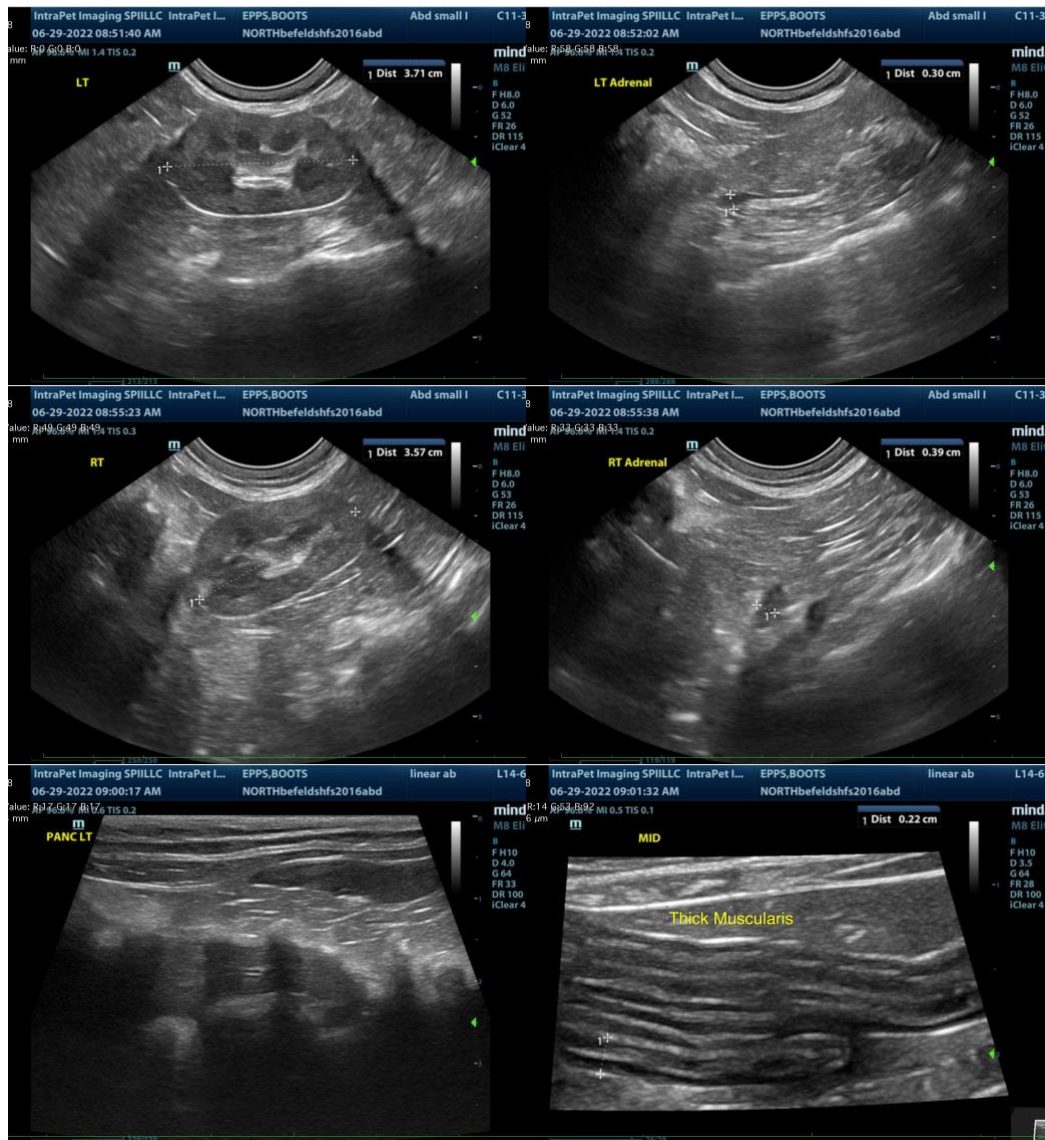
- Urinary bladder debris and mild wall thickening, difficult to fully interpret in a non-fully distended bladder.

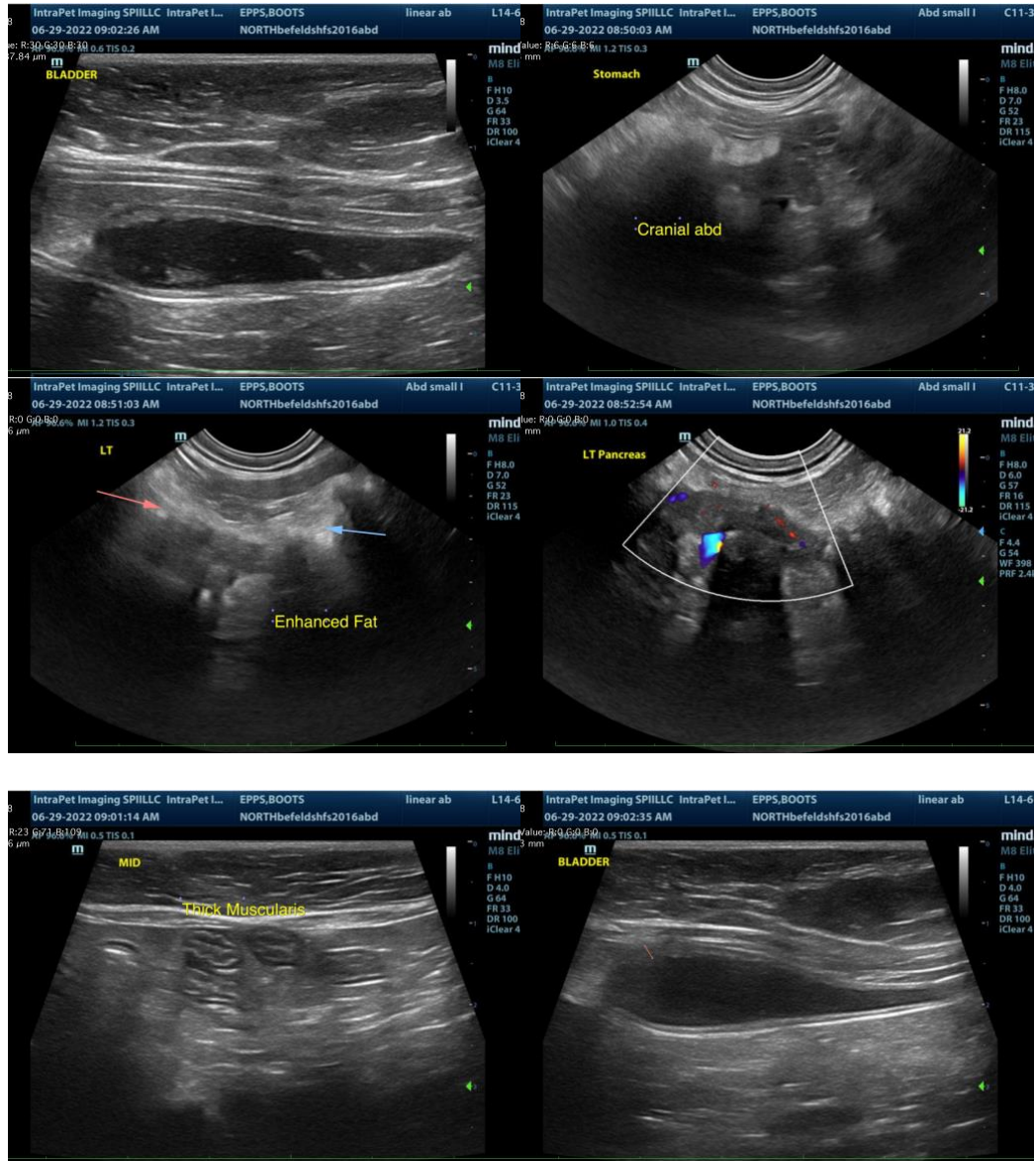
## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Recommendations for this patient:

1. 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.
2. Medical management of pancreatitis with anti-emetics, gastroprotectants, appetite stimulants or nutritional support as needed, pain management, broad spectrum antibiotics, and fluid support is recommended. Monitoring of the pancreas with power doppler is recommended to identify possible necrosis as well as other potential sequelae such as abscesses, etc. Nutritional support is vital to prevent hepatic lipidosis, therefore if appetite stimulants, etc. do not result in improved appetite, a feeding tube may be necessary to maintain adequate nutrition.

- Ideally, after the acute pancreatitis has resolved and patient is more stable, biopsies of the GI tract, being sure to include ileum, if possible, are recommended to definitively diagnose and therefore manage concurrent suspected infiltrative bowel disease.
- Urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.





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.

**Beth Johnson, DVM DACVIM**  
Beth.Johnson@SonoPath.com