

**DATE**

2/15/22

**PRESENTING CLINICAL SIGNS**

History: Weight loss, occasional vomiting.

Lab Results: Attached separately. WNL.

Radiographs: Attached separately. WNL.

**PATIENT**

Cookie Vorsteg

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

**SPECIES**

Feline

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

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

**BREED**

Domestic Shorthair

**SEX**

Spayed Female

The left kidney has a normal shape and size (3.25 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Mild pyelectasia is noted and measured 0.13 cm. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**AGE**

10/1/08

The right kidney has a normal shape and size (3.43 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Mild pyelectasia is noted and measured 0.12 cm. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**WEIGHT**

5 lbs

**Adrenal Glands**

The region of left adrenal (Cranial to left renal artery) is unremarkable but the adrenal is not distinctly visualized. No evidence of a mass effect.

**INTERPRETED BY**

Kathleen Sennello  
DVM, MS, Diplomate  
ACVIM (Small Animal  
Internal Medicine)

The right adrenal gland is normal in size measuring 0.31 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

**HOSPITAL NAME**

Chadwell AH

**Spleen**

The spleen is borderline large in size and mildly mottled. The spleen echotexture is heterogenous and mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There are two, ill-defined, hypoechoic nodules visualized in the splenic parenchyma. One measures 0.99 x 0.55 cm and disrupts the splenic capsule and the other measures 0.3 x 0.49 cm.

**REFERRING VET**

Dr. Gold

**Liver****INVOICE**

96079

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed. The gallbladder lumen is moderately distended. The wall of the gallbladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The common bile duct appears somewhat tortuous and dilated measuring at 0.25 cm. There was no obstruction noted.

### ***Gastrointestinal***

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.36cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. The layering is intact, but the mucosa was somewhat "foggy appearing". Wall thickness is normal to slightly increased. Bowel loops follow a typical curvilinear path with distinct wall layering, but some areas display a prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured 0.38 cm and the jejunum measured 0.32 cm and 0.28 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

### ***Pancreas***

The pancreas is prominent and hypoechoic as compared to the surrounding isoechoic mesentery. The pancreatic duct is dilated at 0.33 cm. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

### ***Free Abdomen***

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There was significant mesenteric lymphadenopathy present with enlarged lymph nodes at the mesenteric root measuring 0.92 cm and 0.81 cm in diameter. The omentum is of normal uniform echogenicity.

## **ULTRASONOGRAPHIC FINDINGS**

### **PRIMARY FINDINGS:**

- Two hypoechoic splenic nodules. There are several, non-cavitated, hypoechoic splenic nodules visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis. Splenic nodules are more concerning in a cat for a neoplastic process.
- Hypoechoic, prominent pancreas with prominent pancreatic duct. The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Moderately thickened small intestine with prominent muscularis layer and foggy mucosa. The bowel wall thickening could be consistent with inflammation, edema, or infiltrative neoplasia.
- Moderate mesenteric lymphadenopathy. The moderate/severe mesenteric lymphadenopathy is most concerning for a neoplastic process, although you can see significant lymphadenopathy in some cases of autoimmune/inflammatory disease, infectious disease (tick born disease-such as bartonella, fungal infections, FIP (cats)) etc.. A fine needle aspirate with cytology is recommended for further evaluation.

### **SECONDARY FINDINGS:**

- Decreased corticomedullary distinction in both kidneys with mild pyelectasia. The bilateral renal findings are consistent with age-related change. Pyelectasia of the left/right kidney could be

consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

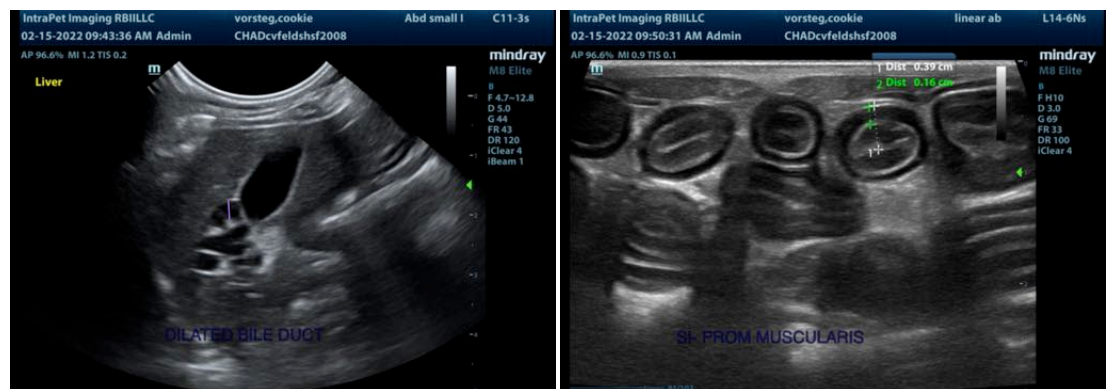
- Mildly dilated, tortuous bile duct. Dilatation of the common bile duct could be consistent with a functional obstruction (i.e. primary hepatic disease resulting in hepatocellular swelling) or with an extrahepatic bile duct obstruction (ie. choledocholith, bile duct tumor, pancreatic disease, other). No evidence of obstruction or pathology is noted. This can be a normal finding in older cats.

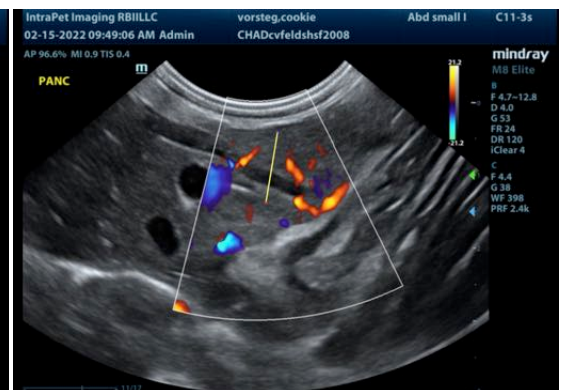
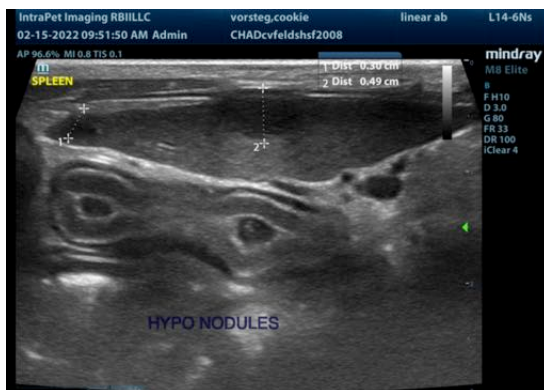
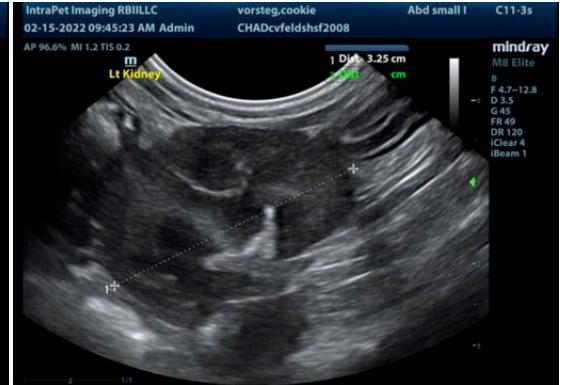
### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The bowel appears thickened and ropey with a prominent muscularis layer and some mucosal fogging. This combined with the enlarged mesenteric lymph nodes is concerning for either severe IBD or early round cell neoplasia. Additionally there are hypoechoic nodules in the splenic parenchyma, which is unusual for cats.

- I recommend FNA of the splenic nodules and mesenteric lymph node.
- Recommend a GI panel to Texas A&M for a qualitative fPLI, TLI, cobalamin and folate to further evaluate the pancreatic and small intestinal changes observed.
- Recommend a novel protein/hydrolyzed protein prescription diet.
- Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.
- Recommend chronic probiotic therapy.

If cytology of a lymph node and spleen is non-diagnostic then consider obtaining GI biopsies.







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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