

**DATE PRESENTING CLINICAL SIGNS**

2/13/22 Presenting Complaint: Referral for Continued Care. Lethargic. Fever. Vomiting With Blood. Blood in stool.

**PATIENT**

Boris Voelker History: Date: 02-11-2022 Notes: indoors mostly, but occasionally outdoors gets 2.5 mg methimazole in am, 5 mg in pm vomiting, multiple times, now bloody RDVM-- platelets are clumped ALT 276 Rads-- increase in sternal LN?, bronchiolar patterns vs age glucose in urine, but on chemistry ok felv/fiv --neg had bloody diarrhea at RDVM plan was to treat as GI, and if not responding, consider US worried increase LN could indicate neoplasia received cerenia, amp and metro, IVF started

**SPECIES**

Feline Assessments: HGE.

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

2010

**WEIGHT**

10.1 Pounds

**INTERPRETED BY**

Rachel Brillhart, RDMS

**HOSPITAL NAME**

Animal Emergency Hospital

**REFERRING VET**

Dr. King

**INVOICE**

35622

Discussed potential causes such as ingestion, pancreatitis, HGE viral, parasites, anaphylaxis. Discussed recommend rehydration with IVF, treat supportively with GI medications, ab if indicated and monitor for improvement. If this is the case- we treat supportively. in most cases the signs will improve in 24 hours, if they do not start to improve or declining will need to consider additional diagnostics such as abdominal Ultrasound. Also have to be concerned about the sternal LN that does appear enlarged, could indicated neoplasia, may/may not be related to current GI signs.

Current Medications: Provable, metronidazole, buprenorphine, maropitant, methimazole, famotidine, mirtazapine

Lab Results: Attached.

Radiographs: sternal lymph node enlargement.

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*

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.

Left kidney is normal is size (3.79 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 (3.93 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*

Bilaterally uniformly plump egg-shaped adrenals (Left measures 0.58 cm thick, right measures 0.58 cm thick), hypoechoic in echogenicity.

### *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*

The liver is subjectively enlarged. Margins smooth, but round, It has a normal homogeneous echotexture. Parenchyma is diffusely hypoechoic, characterized by more prominent than normal portal vein walls. No nodules or masses are evident. Visible vasculature appears normal.

Gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. Tortuous cystic and common bile duct noted, distended to a diameter of 0.36 cm, which is considered normal in a senior cat.

### *Gastrointestinal*

The stomach wall is normal in thickness. Normal layering is maintained except for a diffusely disproportionately thick muscularis layer relative to mucosa. 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 intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). 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 (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

### *Pancreas*

The pancreas is prominent in size and slightly hypoechoic to surrounding tissue. The visible capsule is smooth and normal in contour. Pancreatic duct is distended to 0.26 cm with 0.25 cm being considered normal in a cat. There is no evidence of active peripancreatic inflammation.

### *Other*

There is no evidence of peritoneal effusion. Mesenteric lymph nodes are enlarged and hypoechoic. The lymph nodes maintain normal shape.

There is a 3.85 cm x 1.92 cm anechoic cyst-like structure present in the cranial mediastinum.

## **ULTRASONOGRAPHIC FINDINGS**

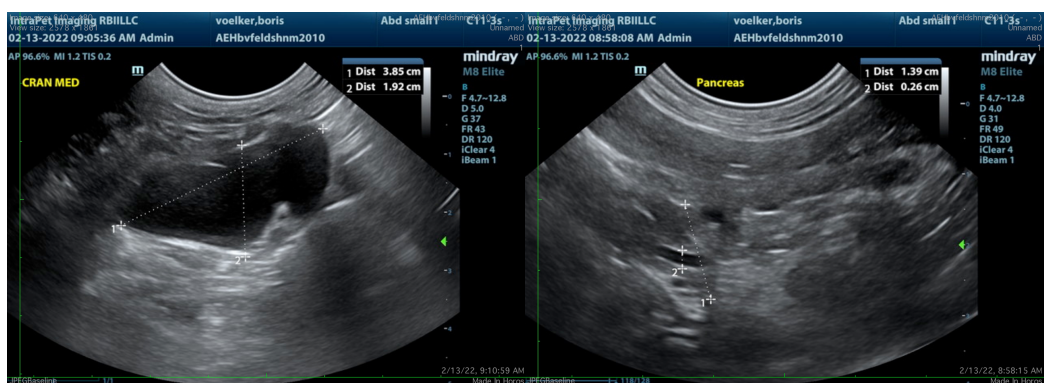
- Feline age related adrenomegaly - likely a benign age-related change. This change can be caused by chronic stress/disease, so investigation for/management of other disease (chronic kidney disease, hyperthyroidism, etc.) is recommended.
- Thick muscularis - This finding has been reported in cats with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma.

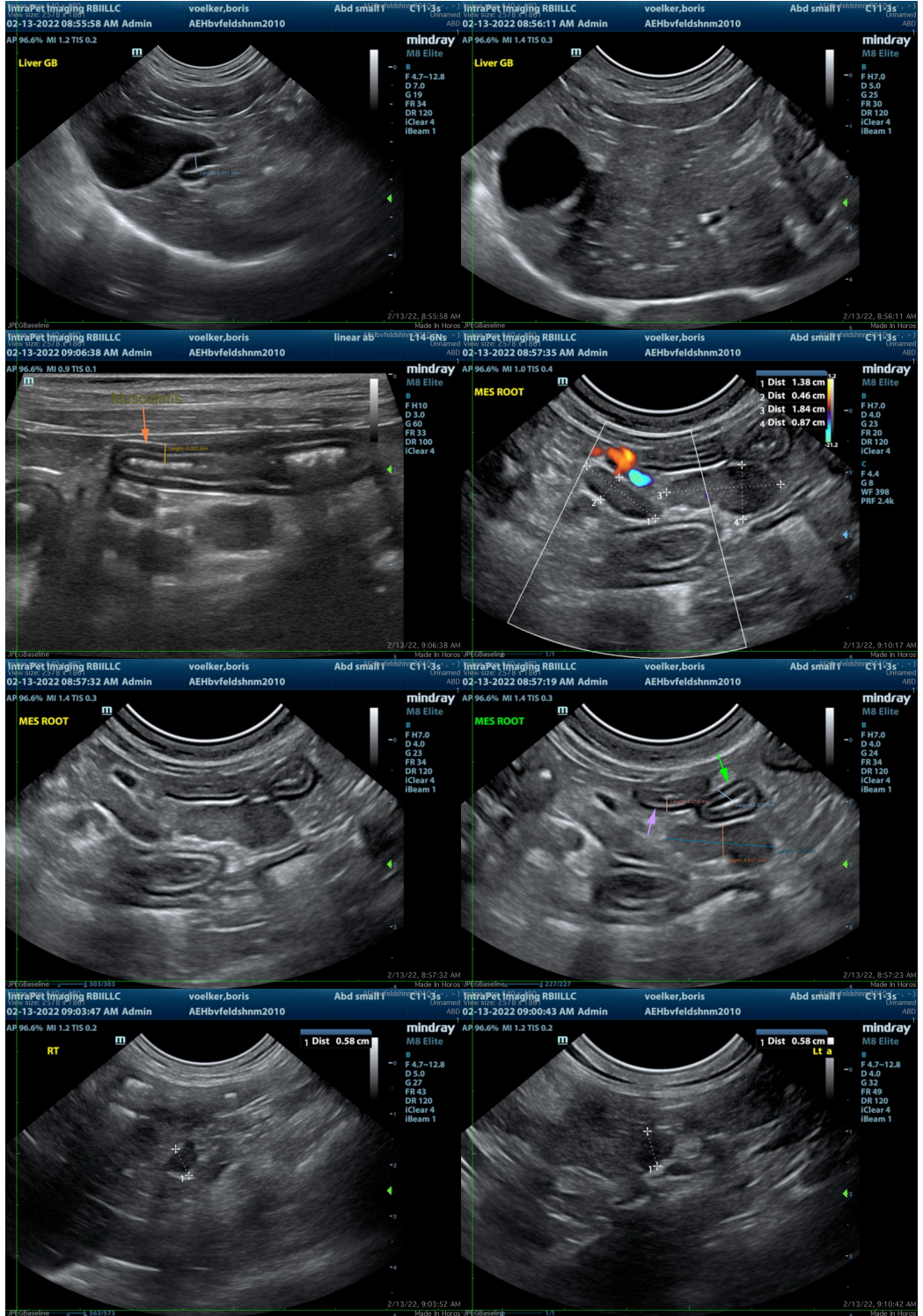
- Likely reactive mesenteric lymphadenopathy. However, infiltrative neoplasia of the lymph nodes cannot be ruled out.
- Mild pancreatic changes with very mildly dilated pancreatic duct – consistent with normal age remodeling variant. However, chronic pancreatitis cannot be ruled out.
- Tortuous cystic and common bile duct – Can be a normal age variant in a cat. However, given the concurrent hypoechoic hepatomegaly, hepatitis/cholangiohepatitis should also be considered. Infiltrative neoplasia causing the hepatomegaly such as round cell neoplasia is also possible.
- Cranial mediastinal cyst – Most consistent with benign, incidental cranial mediastinal cyst. Other more significant disease cannot be ruled out but is considered less likely given the incidental nature of the finding and lack of clinical signs.

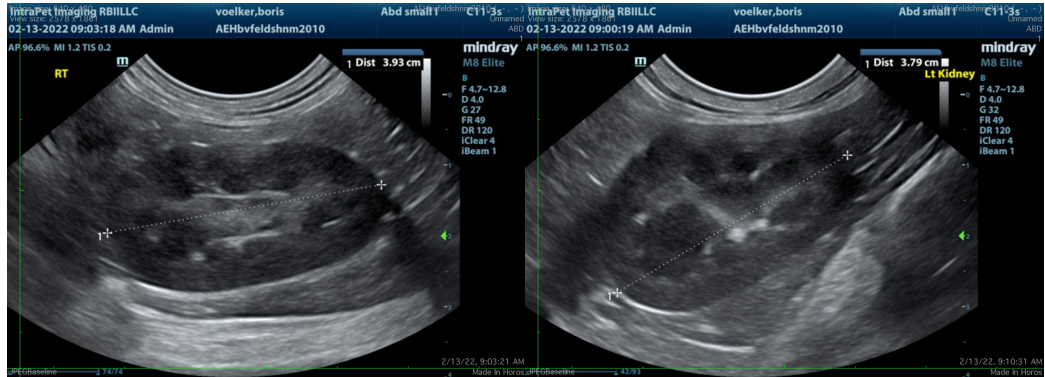
## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Recommendations include a gastrointestinal malabsorption panel including TLI, PLI, folate and cobalamin to Texas A&M GI laboratory to further assess gastrointestinal and pancreatic systems. A fine needle aspirate of the liver is recommended if patient's coagulation status is appropriate. If round cell neoplasia such as lymphoma is not present on the liver cytology, biopsies of the bowel, being sure to include ileum if possible, may be necessary to definitively diagnosis and therefore manage the infiltrative bowel disease. If possible, a fine needle aspirate of the enlarged lymph nodes could also be considered prior to biopsies.

In the meantime, supportive management of the clinical signs with antiemetics, gastroprotectants, appetite stimulants if necessary, as well as broad-spectrum antibiotics (given the hematemesis and hematochezia) are recommended. Empirical deworming with 5-day course of Panacur is also recommended. A diet transition to novel or hydrolyzed protein diet could be considered, and if biopsies are not possible, and/or diagnosis is not obtained from cytology, empirical steroids.







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