

**PATIENT**

Eva Connelly

**SPECIES**

Feline

**BREED**

Russian Blue

**SEX**

FS

**AGE**

9 years 2 months

**WEIGHT**

8.34

**INTERPRETED BY**

Beth Johnson, DVM,  
DACVIM

**IMAGING**

**PERFORMED BY**

Denise Bruno, LVT,  
RDMS

**HOSPITAL NAME**

Brooklyn Heights VH

**REFERRING VET**

Dr. Venezia

**INVOICE**

14298

**DATE**

7/14/22

**PRESENTING CLINICAL SIGNS**

Few week history of decreased appetite, and now weight loss. Blood work unremarkable. No vomiting or diarrhea. Labs attached

**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.

Kidneys are normal in size (the left measures 3.6 cm, the right measures 2.95 cm) with increased cortical echogenicity. Normal smooth peripheral margination and shape are maintained. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed. Infiltrative disease (infectious, neoplastic, etc.) or nephritis cannot be ruled out but is considered less likely. A chronic infarct was noted in the cranial pole of the right kidney.

**Adrenal Glands**

The right adrenal gland is normal in size (0.35 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.35 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

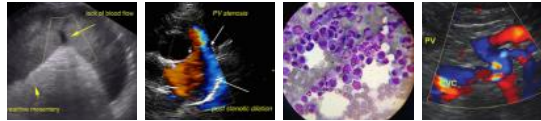
**Spleen**

Spleen is normal in size with subtly scalloped or undulating capsular contour. Parenchyma is normal in echogenicity with a mildly coarse/heterogenous echotexture. 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 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.



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***Gastrointestinal***

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The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

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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 empty with no evidence of obstruction or foreign material.

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

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***Pancreas***

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

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***Free Abdomen***

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There is no evidence of free peritoneal effusion noted in these images.  
There is no apparent lymphadenopathy noted in these images.

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**ULTRASONOGRAPHIC FINDINGS**

***Primary Findings***

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- Inflammatory bowel disease (IBD) pattern – Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. No aggressive lymphadenopathy, loss of layering, etc. is noted to make lymphoma more probable, but lymphoma cannot be definitively ruled out without tissue sampling.
- Hypoechoic liver – This appearance is consistent with an acute hepatopathy or acute cholangiohepatitis. Infiltrative neoplasia (round cell neoplasia) should also be considered.
- Scalloped spleen – can be associated with benign or malignant infiltrative disease. Common causes include a reactive spleen secondary to immune stimulus or early infiltrative round cell neoplasia such as lymphoma or mast cell tumor.

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***Secondary Findings***

- A chronic Infarct in the right kidney

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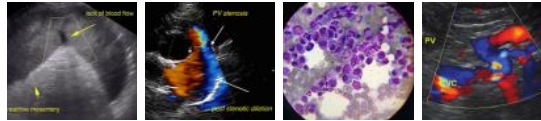
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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.

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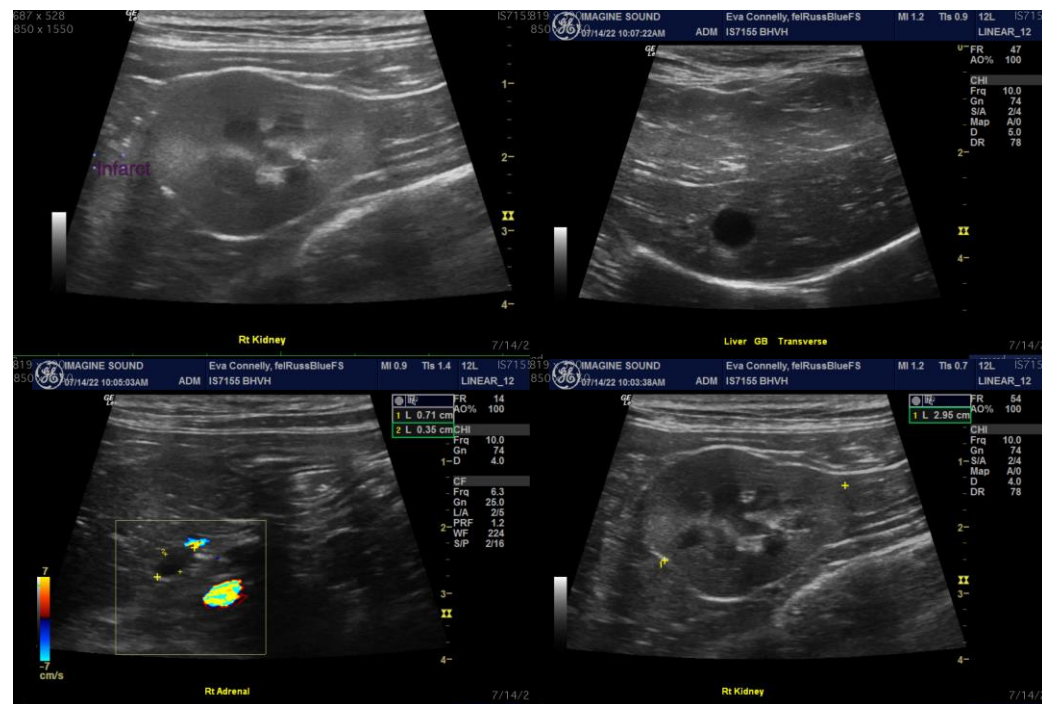
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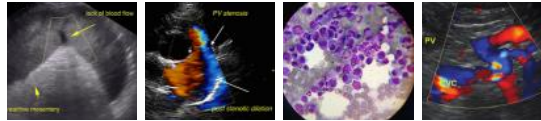
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Ideally, biopsies of the GI tract, being sure to include ileum if possible, are recommended to definitively diagnose and therefore manage the infiltrative bowel disease. All of the changes in these images are benign and individually may not be pathologic. However, given the combination of them, infiltrative round cell neoplasia has to be considered. Therefore, a fine needle aspirate of the spleen and liver may be considered, if the patient's coagulation status is appropriate, as a less Invasive way to try and diagnose round cell neoplasia such as lymphoma, prior to perusing biopsies.

If further workup cannot be obtained, empirical therapies could include diet change, empirical deworming with a 5 day course of Panacur, cobalamin supplementation (unless cobalamin level is evaluated and supplementation is not warranted) and prednisolone (if not contraindicated based on patient contraindications, co-morbidities, etc.).





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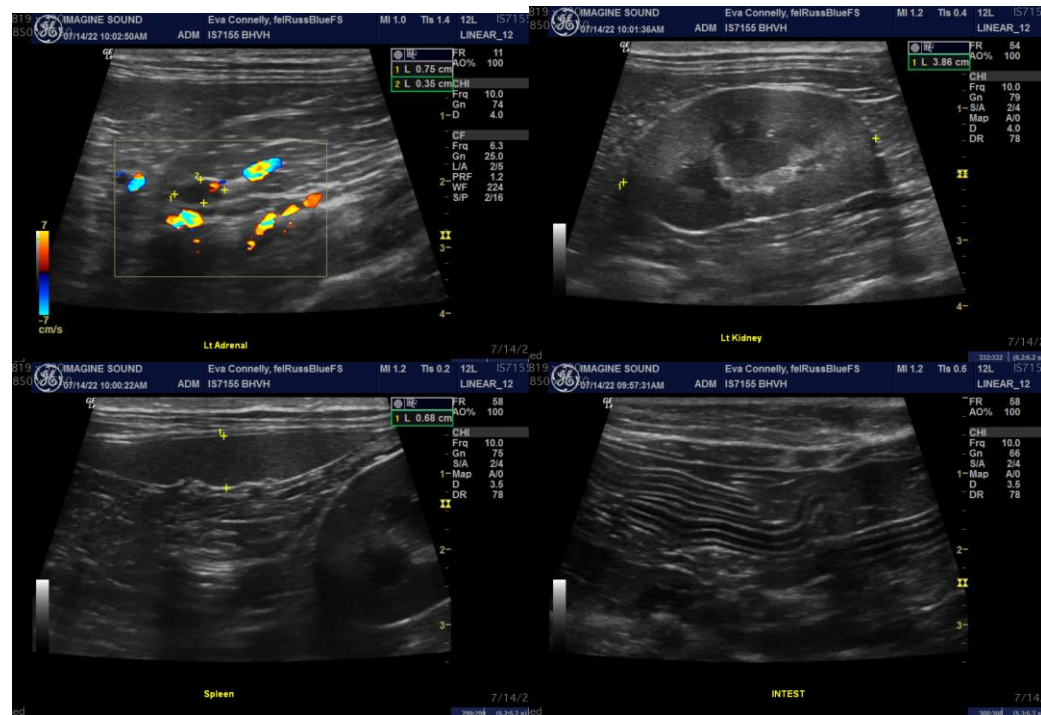
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Beth Johnson, DVM, DACVIM**  
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