

**DATE**

11/21/22

**PRESENTING CLINICAL SIGNS**

History: Presented for routine exam and thyroid BW. Owner reported not concerned but weight loss noted (2 lbs).

**PATIENT**

Henry Bentz

Current Medications: Clavamox 62.5 mg BID

Lab Results: BW revealed low HCT, low WBCS. Recheck CBC after abx and values worsened.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

1/1/07

**WEIGHT**

13 Pounds

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

Urinary bladder is adequately 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 (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.

Right kidney is normal is size (4.21 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**

Left adrenal gland is normal in size (0.53 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (0.54 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

**Spleen**

Spleen is subjectively large 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. Multifocal nodules/masses of mixed echogenicity are noted, primarily hyperechoic in echogenicity but contain multiple cysts of varying size. 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.

**Gastrointestinal****INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**HOSPITAL NAME**

Essex Middle River  
VC

**REFERRING VET**

Dr. Franchini

**INVOICE**

18181

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 mildly 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.

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

### ***Pancreas***

Pancreas is prominent in size with swollen irregular contour. Parenchyma is heterogenous characterized by hyperechoic tissue remodeling intermixed with ill-defined hypoechoic nodules. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

### ***Free Abdomen***

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

## **ULTRASONOGRAPHIC FINDINGS**

- Pancreatic nodular hyperplasia – Infiltrative neoplasia cannot be ruled out but is considered less likely.
- Diffusely hyperechoic hepatomegaly with feline biliary cystadenomas – This appearance is most consistent with benign hepatic lipidosis. Infiltrative disease such as amyloidosis or round cell neoplasia, such as mast cell tumor or less likely, lymphoma, is also possible. Regarding the feline biliary cystadenomas, in a senior cat, these liver lesions are most consistent with multiple benign biliary cystadenomas. Malignancy cannot be ruled out but is considered less likely given lack of clinical signs and/or laboratory changes.
- 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.
- 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.

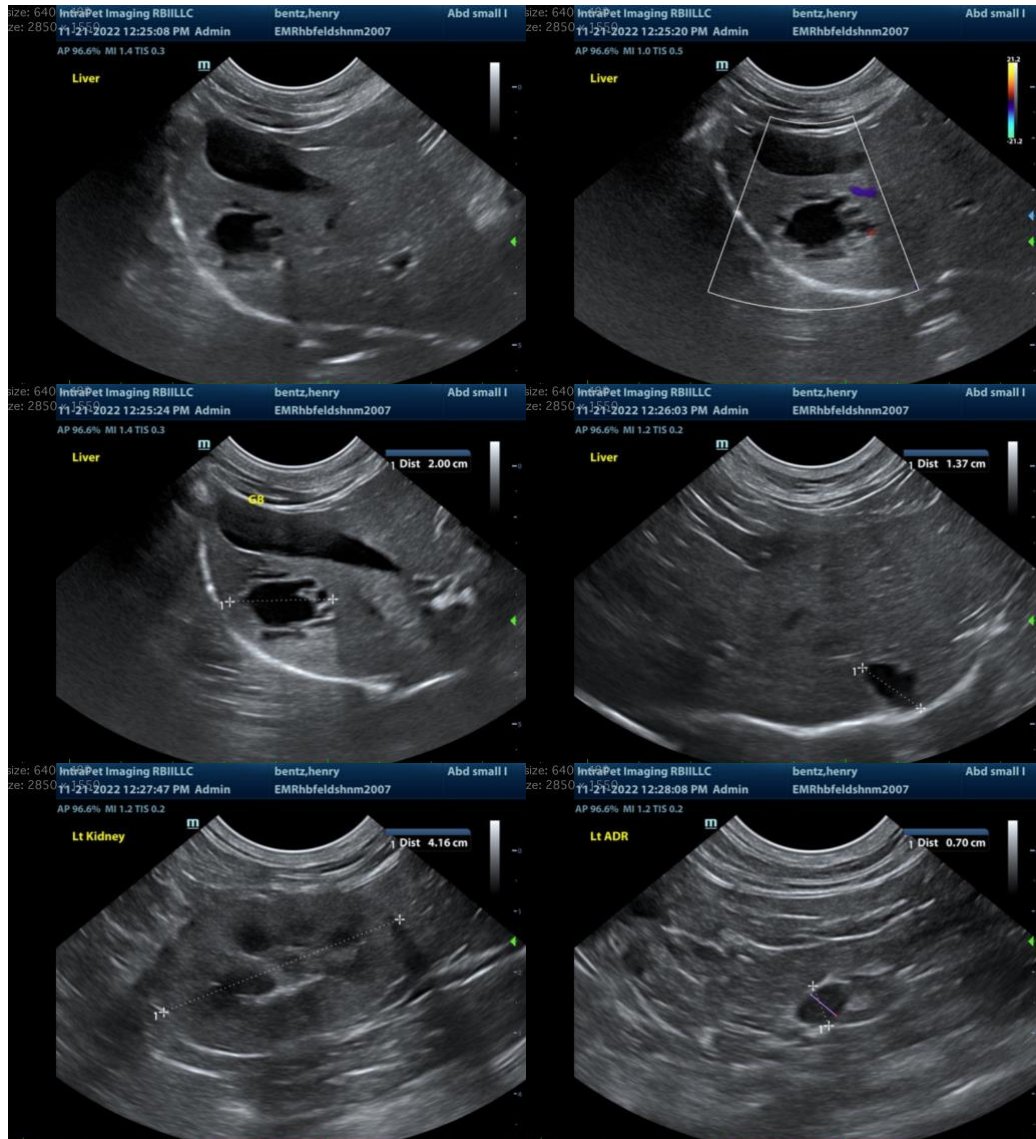
## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

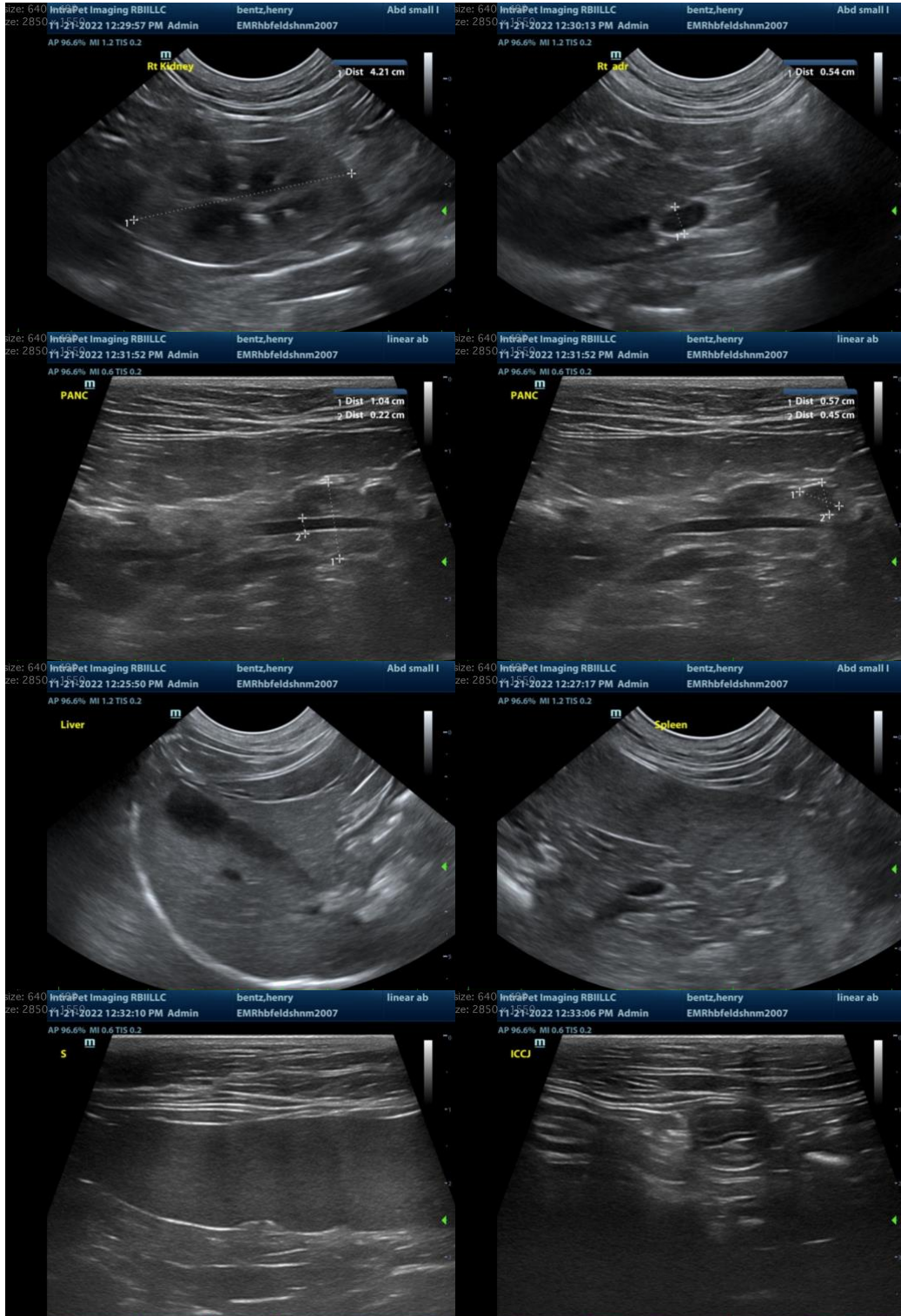
Given this patient's reported cytopenia, recommendations include ruling out an infectious, primarily viral disease, and then looking for evidence of infiltrative neoplasia such as lymphoma, beginning possibly with a bone marrow cytology and/or given the pathology described above, a fine needle aspirate of the spleen +/- the pancreas if the patient's coagulation status is appropriate.

Additionally, 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.

T4 and free T4 is also recommended if not recently evaluated.

Ultimately, if a diagnosis is not obtained, biopsies of the GI tract may be necessary to definitively diagnose, and therefore, manage this patient's suspected infiltrative disease.





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**

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