


**PATIENT**

Sheba Bacani

**SPECIES**

Feline

**BREED**

DSH

**SEX**

FS

**AGE**

13 yo 5 mo

**WEIGHT**

7.25

**INTERPRETED BY**

 Beth Johnson, DVM  
 DACVIM

**IMAGING PERFORMED BY**

Dr. Lucas Budden

**HOSPITAL NAME**

Frontier VH

**REFERRING VET**

Dr. Lucas Budden

**INVOICE**

14300

**DATE**

7/14/22

**PRESENTING CLINICAL SIGNS**

History CKD, suspect IBD/GI lymphoma, heart murmur. Wellness exam 6/5/2022 and had lost 1.4# since last exam 2/23/2022 (8.5# previously, 6/5 was 7.1#). Due to presumed IBD/GI lymphoma patient started on prednisone 5 mg SID. Recheck on 6/26/2022 patient had gained 0.7# (up to 7.8#) and was doing well. Seen again today for hematuria and had lost weight again (7.25#). Ultrasound to look for undiagnosed cause for weight loss. Current medications: Cerenia, Prednisone 5 mg SID, compounded potassium supplement, SC fluids every 2-3 days, Renal/HP food combo. Appetite appears normal at this time. No vomiting or diarrhea. History: ultrasound 3/12/2021. Findings: Minimally hyperechoic and coarse hepatic parenchyma, hyperechoic hepatic nodule, borderline thickened gallbladder/mildly echogenic bile/borderline dilated common bile duct, marked thickening of the jejunal walls with preferential muscularis wall layer thickening, mild renal asymmetry with small left kidney and borderline small right kidney, eosinophilia, heart murmur. FNA intestines and gall bladder aspirate. FNA non diagnostic. Gall bladder culture negative. Referred to specialty hospital. FNA spleen found suspect MCT. Surgery to remove spleen, take GI biopsies and liver biopsies performed 6/2/2021: Biopsy of the spleen did not correlate with cytology of the spleen. Hard to know why. There was no gross appearance of a mass so would suspect infiltrative not focal disease. Pathologist was surprised and did offer special stains to look for increased number of mast cells. The small intestines appear to have hypertrophied muscularis layer however histologically normal appearance. Unsure what the cause of this is but has the appearance of benign change.

Abnormal PE/Chem/CBC/UA Results: Today's PE: lost 0.55# since last appt 6/26/2022, 6-8% dehydrated, grade 2/6 systolic parasternal HM (historical and stable), moderate dental tartar. CBC/Chem/UA/urine culture today collected and pending 6/6/2022 CBC/Chem/T4/UA BUN 54, creatinine 5.7 mg low 1.3 chol 242 potassium low end normal at 3.8 amylase 1234 psl high 27 hct 22% low, reticulocyte 18400 low - nonregenerative anemia rest of cbc/chem wnl T4 1.6 - wnl usg 1.014, trace proteinuria, rest of sediment nsf UPC 6/8/2022 BNP SNAP normal 6/21/2022 UPC normal

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

Urinary bladder is adequately distended with primarily anechoic contents and occasional echogenic non-shadowing debris. Apical urinary bladder wall is diffusely thick (0.35 cm). Mucosa is hyperechoic and irregular. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface.

Kidneys are bilaterally irregular and diffusely echogenic with decreased corticomedullary distinction and poor visualization of internal architecture. There is no pyelectasia noted and no mineral is observed. The left kidney is small and measures 2.65 cm. The right kidney is more normal size measuring 3.36 cm.

**Adrenal Glands**

The right adrenal gland is unable to be well visualized in these images.

The left adrenal gland is normal in size (0.26 cm width at the cranial pole and 0.29 cm width at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.



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**Spleen**

Spleen has been previously removed surgically.

**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. Several small focal hyperechoic nodules were noted measuring between 0.5-1.0 cm in diameter.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is mildly thick and hyperechoic. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

**Gastrointestinal**

Fundic mucosal hypertrophy with hyperechoic mucosa and some mucosal remodeling is noted. There is no loss of mural detail. Layering is normal. There is mild luminal fluid accumulation. No evidence of masses/nodules or foreign material present.

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.

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

**Pancreas**

Pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and has a mildly irregular undulating contour. Parenchyma is coarse with mixed echogenic remodeling noted. Pancreatic duct dilation is noted.

**Free Abdomen**

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

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

- 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



<b>PATIENT</b>	to make lymphoma more probable, but lymphoma cannot be definitively ruled out without tissue sampling.
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<b>SPECIES</b>	<ul style="list-style-type: none"> <li>Gastritis – Consistent with irritation secondary to dietary indiscretion or intolerance, infection (bacterial, viral, other), parasitic or protozoal disease, toxin, other metabolic disease such as pancreatitis, other. Microulceration cannot be ruled out. This could be uremic gastritis secondary to the chronic kidney disease.</li> </ul>
Feline	
<b>BREED</b>	<ul style="list-style-type: none"> <li>Chronic Kidney Disease – This appearance of the kidneys is consistent with chronic kidney disease such as chronic glomerular or interstitial nephritis, chronic pyelonephritis, etc.</li> </ul>
DSH	
<b>SEX</b>	<ul style="list-style-type: none"> <li>Hyperechoic hepatomegaly with multifocal hyperechoic nodules – 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. Differentials for the hyperechoic nodules include fibrosis or calcification caused by old hematomas or infarcts, chronic inflammation, granulomatous disease, infiltrative neoplasia, or metastatic disease cannot be ruled out but is considered less likely, given the reported chronicity of similar lesions</li> </ul>
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<b>WEIGHT</b>	<ul style="list-style-type: none"> <li>Chronic active pancreatitis</li> </ul>
7.25	
<b>INTERPRETED BY</b>	<b>Secondary Findings</b>
Beth Johnson, DVM DACVIM	<ul style="list-style-type: none"> <li>Chronic Cystitis - Urinary bladder wall changes are most consistent with chronic cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely given the location and diffuse nature of the changes.</li> <li>Gallbladder debris– Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness, however, it can also be associated with hepatobiliary disease in cats and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.</li> </ul>
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<b>REFERRING VET</b>	<b><u>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</u></b>
Dr. Lucas Budden	A blood pressure is recommended If not recently evaluated.
<b>INVOICE</b>	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, in case cobalamin and/or folate supplementation is necessary and could help improve the weight loss.
14300	
<b>DATE</b>	A urine culture Is recommended if the reported hematuria persists to rule out an occult urinary tract infection. Differentials for this patient's weight loss include potentially a subtly decreased appetite secondary to the kidney disease +/- concurrent gastritis, as well as potentially the infiltrative bowel disease and may be a combination of both. Therefore, recommendations include; medical management of gastritis and a potentially decreased appetite with antiemetics, gastroprotectants such as famotidine and an appetite stimulant. If that doesn't help resolve the weight loss or promote weight gain, more
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aggressive management of the presumed inflammatory bowel disease may need to be considered, balancing medication choices carefully with the chronic kidney disease.

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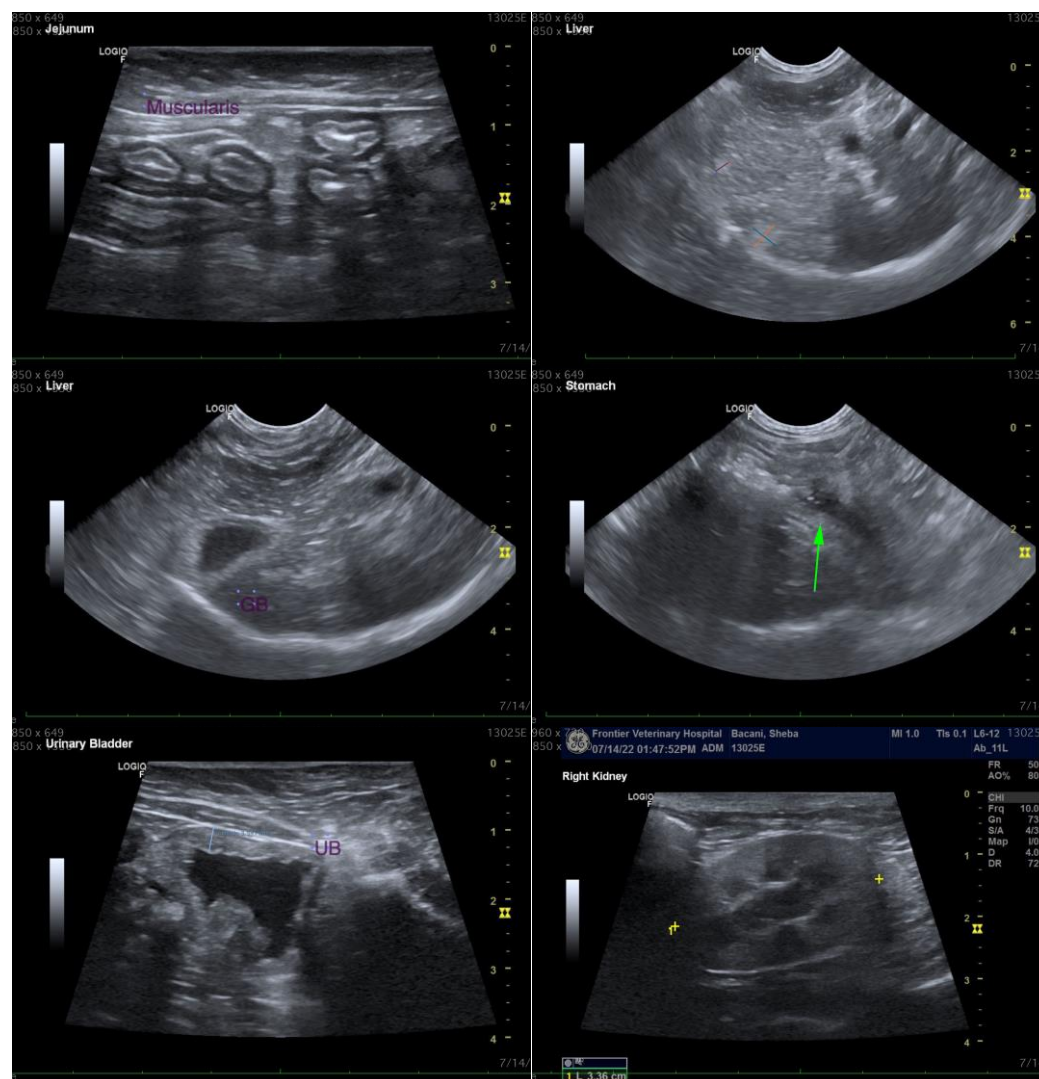
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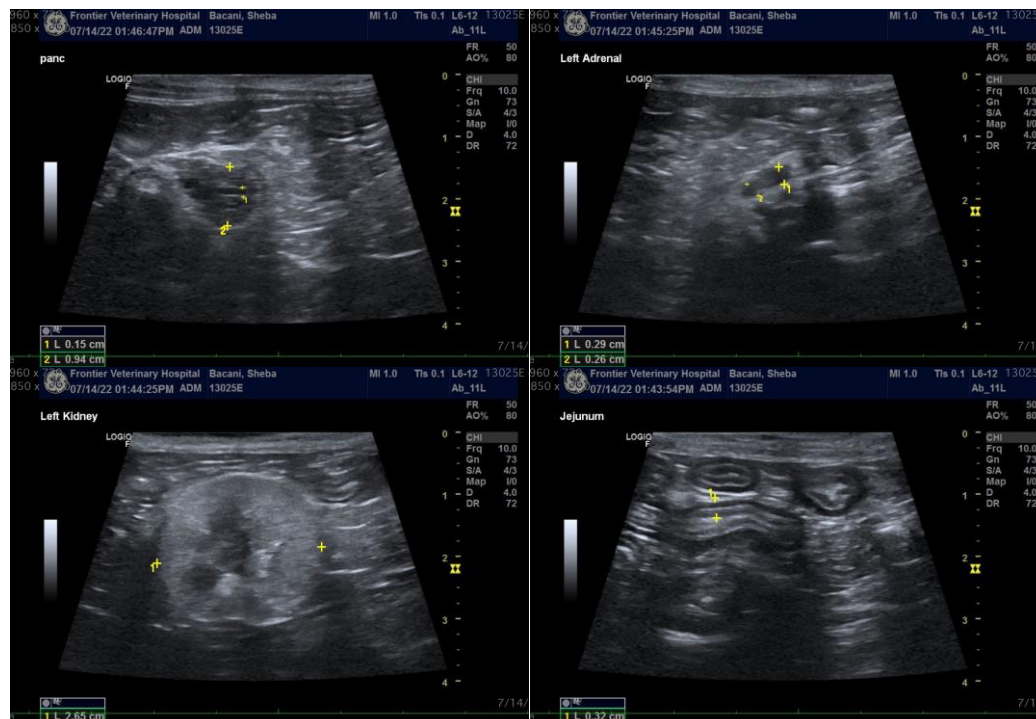
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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**  
[Beth.Johnson@sonopath.com](mailto:Beth.Johnson@sonopath.com)