



**PATIENT**

Mylo Mowrer

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

13 Years

**WEIGHT**

15 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Jack Reese

**HOSPITAL NAME**

Willow Run VC

**REFERRING VET**

Dr. Angela Davies

**INVOICE**

36608

**DATE**

3/30/22

**PRESENTING CLINICAL SIGNS**

Presenting Complaint: losing weight, increased thirst, diarrhea, occasional vomiting.  
Abnormal PE/Chem/CBC/UA Results: Fecal negative RBC 6.29 (7.12 - 11.46 M/μL) Reticulocytes 75 (3 - 50 K/μL) Monocytes 1.956 (0.04 - 0.53 K/μL) Amylase 4,268 (623 - 2,239 U/L) Lipase 49 (0 - 45 U/L)

**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.

The right kidney is normal in size (4.0 cm) and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

The left kidney is normal in size (4.6 cm) and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**Adrenal Glands**

The right adrenal gland is normal in size (0.38 cm thick), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.40 cm thick), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**Spleen**

The 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 normal in size. Margins are sharp and smooth with a normal homogeneous echotexture and normal echogenicity, except for in the area of the left caudal liver where there is a focal mass of mixed echogenicity, containing multiple cysts of varying size within an otherwise hyperechoic region of the liver, measuring approximately 5.0 cm in diameter. A second similar cystic/hyperechoic lesion is present in the deep right liver and measures 2.0 cm in diameter.

The 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**

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.

The visible small intestines are normal in wall thickness. Normal layering is maintained except for a diffusely disproportionately thick muscularis layer relative to mucosa.



<b>PATIENT</b>	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.
Mylo Mowrer	
<b>SPECIES</b>	The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.
Feline	<b>Pancreas</b>
<b>BREED</b>	The pancreas is prominent size and mildly irregular in shape, primarily with an irregular contour in the left limb of the pancreas. It has a diffusely coarse echotexture, created by nodules, with the largest hypoechoic nodule being in the medial aspect of the left base and measuring 0.8 cm x 1.0 cm. Regional pancreatic duct dilation is present in the left limb. No peripancreatic hyperechoic tissue or free fluid is appreciated.
DSH	
<b>SEX</b>	<b>Free Abdomen</b>
Neutered Male	There is no evidence of peritoneal effusion. A hypo- to anechoic round nodule/lymph node measuring 0.5 cm round is noted just caudal to the liver, rule outs for which include a pancreatic nodule versus a lymph node versus other. No other lymphadenopathy is appreciated in these images.
<b>AGE</b>	<b>PRIMARY FINDINGS</b>
13 Years	<ul style="list-style-type: none"> <li>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.</li> <li>Chronic pancreatitis without evidence of acute inflammation (chronic smoldering inflammation cannot be ruled out) with likely nodular hyperplasia of the pancreas.</li> <li>In a senior cat, the liver lesions are most consistent with benign biliary cystadenomas. Malignancy cannot be ruled out, but is considered less likely.</li> </ul>
<b>WEIGHT</b>	<b>SECONDARY FINDINGS</b>
15 Pounds	<ul style="list-style-type: none"> <li>Age related kidney change – This finding is expected/consistent with age-related mild degenerative disease and should be interpreted clinically in combination with laboratory changes.</li> </ul>
<b>INTERPRETED BY</b>	<b>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</b>
Beth Johnson, DVM DACVIM	The primary contributor to this patient's clinical signs, based on the ultrasound images, is likely bowel disease +/- chronic pancreatitis, and therefore recommendations include a gastrointestinal malabsorption panel including TLI, PLI, folate and cobalamin to Texas A&M GI laboratory for further assessment of gastrointestinal health and the pancreas. Given the PU/PD, T4 and free T4 are also recommended if not recently evaluated, as is a urinalysis with follow up culture if indicated based on urinalysis results.
<b>IMAGING PERFORMED BY</b>	
Jack Reese	
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Willow Run VC	
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Dr. Angela Davies	While considered probably benign and likely not contributing to clinical signs, a fine needle aspirate of the liver is a reasonable diagnostic if patient's coagulation status is appropriate. If this patient has cranial abdominal pain consistent with pancreatitis, medical management of pancreatitis is recommended. A fine needle aspirate of the pancreas could also be considered, but is likely of low yield as a contributor to this patient's clinical signs.
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3/30/22	Ideally, biopsies of the small bowel are recommended, being sure to include the ileum, if possible, at which time biopsies of the pancreas and the liver mass could also be obtained. In the meantime, supportive care of the gastrointestinal signs with antiemetics, appetite simulants, gastroprotectants, probiotics for the diarrhea, etc. is recommended, +/- empirical steroids if biopsies are not elected.





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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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