



**PATIENT**

Sansa Horner

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

10 Years 5 Months

**WEIGHT**

8.7 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Leal

**HOSPITAL NAME**

Blairstown AH

**REFERRING VET**

Dr. Summers

**INVOICE**

42042

**DATE**

10/13/22

**PRESENTING CLINICAL SIGNS**

Cat presented chronic diarrhea and thriftiness. Previous bloodwork in summer essentially WNL. Recent bloodwork shows increased WBC count (approx. 30K), PCV 22%. Ultrasound done for further diagnostics

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with incidental suspended lipid in a cat, possibly combined with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are overall normal in size 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 cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia or infarcts observed. The left kidney measures 3.8 cm. The right kidney measures 4.2 cm. Non-obstructive areas of mineralization/nephroliths are noted.

**Adrenal Glands**

The area of the right adrenal gland is examined without evident pathology.

The left adrenal gland is normal in size (0.29 cm), 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**

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.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. The cystic and common bile duct are tortuous, but not overly dilated, which could be a normal anatomic variant in cats.

**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 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,



<b>PATIENT</b>	thick and hyperechoic, without evident loss of layering appreciated. The lumen is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction or foreign material noted.
Sansa Horner	
<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>	Pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and has a mildly irregular undulating contour. Parenchyma is coarse with mixed echogenic remodeling and ill-defined hypoechoic nodules. Pancreatic duct dilation is noted.
DSH	<b>Free Abdomen</b>
<b>SEX</b>	There is a scant amount of anechoic free fluid in the cranial abdomen.
Spayed Female	The mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.
<b>AGE</b>	A prominent 0.47 cm thick, hypoechoic pancreaticoduodenal lymph node is noted in the cranial abdomen.
10 Years 5 Months	
	<b>PRIMARY FINDINGS</b>
<b>WEIGHT</b>	<ul style="list-style-type: none"> <li><b>Inflammatory bowel disease (IBD) pattern</b> – 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.</li> </ul>
8.7 Pounds	
<b>INTERPRETED BY</b>	<ul style="list-style-type: none"> <li><b>Chronic active pancreatitis with pancreatic nodular hyperplasia suspected</b> – An acute on chronic process can't be definitively ruled out given the concurrent lymphadenopathy and free fluid in the area. Infiltrative neoplasia cannot be ruled out but is considered less likely.</li> </ul>
Beth Johnson, DVM DACVIM	
<b>IMAGING PERFORMED BY</b>	<ul style="list-style-type: none"> <li><b>Tortuous biliary system</b> – This may be suggestive of concurrent cholangitis, indicating a "Triaditis". However, there is no debris or overdistention, so this finding should be interpreted in combination with supporting laboratory changes and/or clinical signs.</li> </ul>
Dr. Leal	
<b>HOSPITAL NAME</b>	<ul style="list-style-type: none"> <li><b>Hyperechoic hepatomegaly</b> – 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.</li> </ul>
Blairstown AH	
<b>REFERRING VET</b>	<b>SECONDARY FINDINGS</b>
Dr. Summers	<ul style="list-style-type: none"> <li>Age related kidney changes with non-obstructive nephrolithiasis and urinary bladder debris</li> </ul>
	<b>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</b>
<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.
42042	A fine needle aspirate of the liver could be considered if patient's coagulation status is appropriate.
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Urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

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In the meantime, supportive/symptomatic medical management of possible acute pancreatitis combined with gastroenteritis, cholangitis (Triaditis) could be considered in the form of antiemetics if necessary, gastroprotectants, an appetite stimulant if indicated, and probiotics such as Provable or Visbiome. Antibiotics are likely not indicated unless liver enzymes are increased to indicate an active cholangitis. Empirical deworming with a 5-day course of Panacur is recommended, as is a transition to a hydrolyzed protein diet. Ultimately, if clinical signs persist, biopsies of the gastrointestinal tract may be necessary to definitively diagnose and therefore manage the suspected infiltrative bowel disease.

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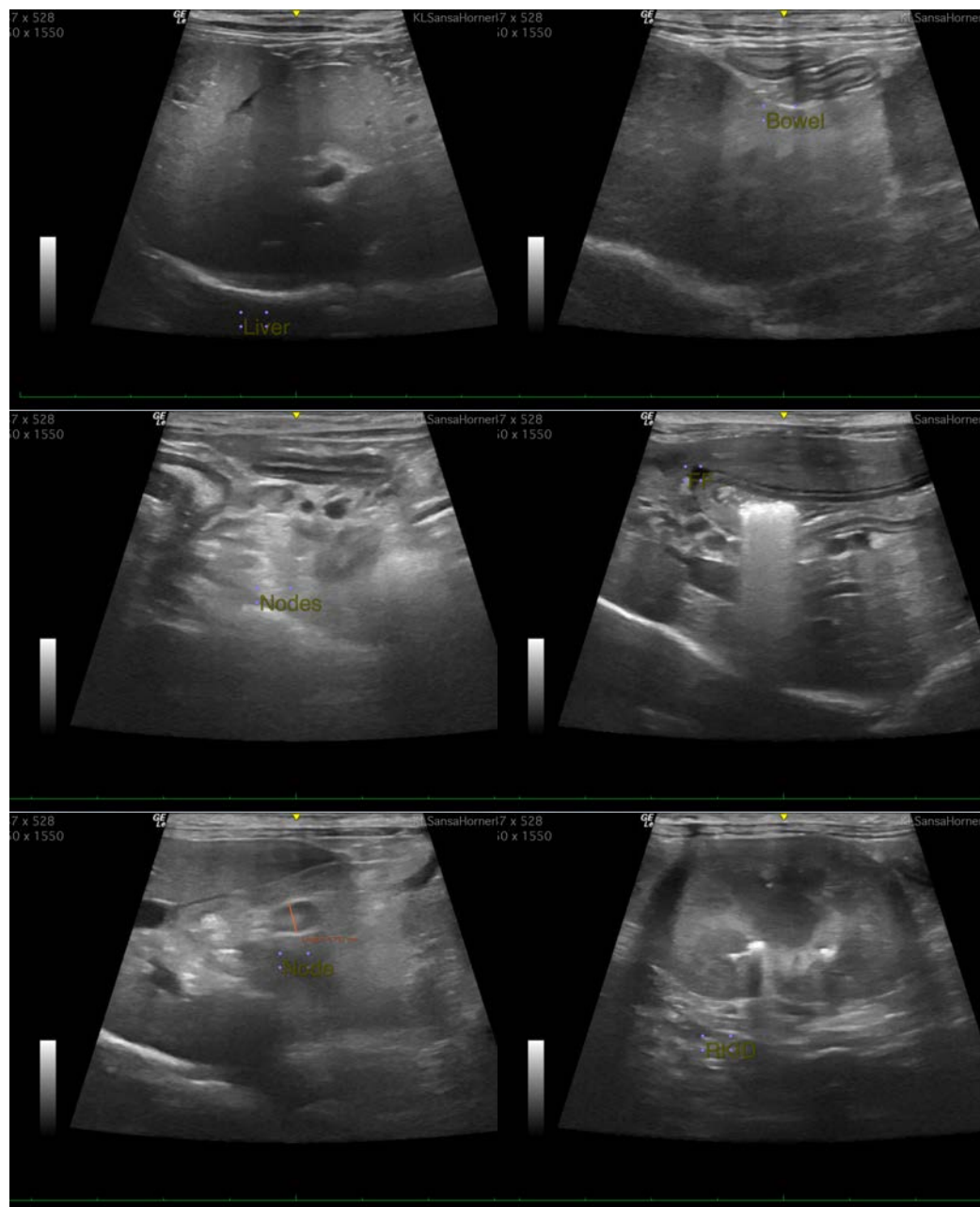
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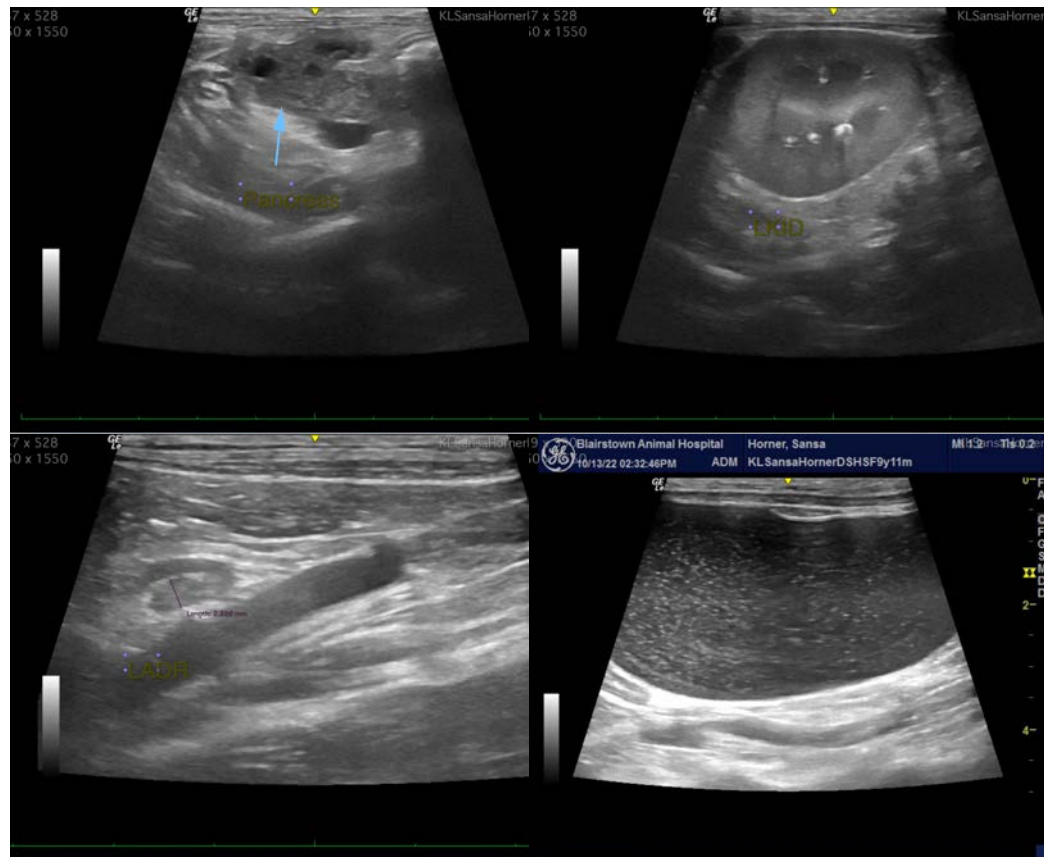
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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