



**PATIENT**

Lily Anderson 55642A

**SPECIES**

Canine

**BREED**

Bichon Frise

**SEX**

Spayed Female

**AGE**

11 Years 5 Months

**WEIGHT**

6.2 kg

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

**IMAGING  
PERFORMED BY**

Kim Liedberg

**HOSPITAL NAME**

SVS Imaging WI

**REFERRING VET**

Dr. Maller- Madison VS

**INVOICE**

20271

**DATE**

12/30/22

**PRESENTING CLINICAL SIGNS**

History: On Christmas, Lily seemed restless and uncomfortable. She was shaking, drooling, and panting heavily which is unusual for her according to Ron. He noticed she was wobbling and seemed unstable on her hind end. She has a history of grade 1 luxating patellas on the right hind limb. Lily was boarded on Wednesday during the day and since has not had a bowel movement. She is not interested in food and has been lethargic since arriving home from the boarding facility. This morning, she started coughing and hacking until she vomited what Ron believes to be a cigarette butt and undigested food. Ron believes she had a seizure this morning as she was shaking intensely and seemed disoriented shortly after; she has never had a seizure prior to this instance. Lily has been drinking more than usual but is still urinating normally. Current medications: Omeprazole q12hrs, o unsure of dose Current diet: Nutro kibble q8hrs

Abnormal PE/Chem/CBC/UA Results: Elevated protein

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted. Aortic trifurcation was normal.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 4.8 cm in length. The right kidney measured 4.6 cm in length.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 1.8 cm in length x 0.45 cm width at the caudal pole.

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 1.7 cm length x 0.40 cm width at the caudal pole.

**Spleen**

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.

**Liver**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. Solitary to intermittent, nondisruptive, discrete, echogenic intraparenchymal nodules were noted. The nodules were consistent with probable areas of nodular



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hyperplasia or benign lipogranulomas, not consistent with neoplastic criteria. An example of liver nodule measured 0.75 cm in diameter.

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The gallbladder was non distended in size with nondependent echogenic debris. The cystic duct and common bile ducts were normal without evidence of dilation.

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**Gastrointestinal**

The stomach presented mild wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. Mild retained anechoic gastric fluid was noted. No evidence of mechanical pyloric outflow obstruction. No evidence of gastric foreign material.

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The small intestine presented intact wall layering and maintained 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of obstruction or foreign material. Segmental, mildly hyperechoic jejunal mucosal speckling to striations was noted. The duodenum wall measured 0.42 cm. The jejunum wall measured 0.41 cm.

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Normal visible colon wall layers were present. The colon was nondistended containing strongly shadowing formed fecal matter in the area of the descending colon and colorectum.

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**Pancreas**

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

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**Free Abdomen**

Focal to intermittent, mildly prominent mesenteric lymph nodes were present. The lymph nodes were essentially isoechoic to adjacent omentum without evidence of peripheral inflammation or neoplastic lymphatic criteria and maintaining a normal width: length ratio (<0.5). An example measured 1.0 cm x 0.41 cm.

No evidence of omental masses or peritoneal free fluid.

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**ULTRASONOGRAPHIC FINDINGS**

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- Subjective inflammatory gastroenteropathy pattern, exhibiting nonspecific segmental jejunal mildly hyperechoic mucosal speckling/striations and mild gastric hypomotility
- Heterogenous pancreas- likely age-related/patient variant, benign remodeling owing to previous inflammation or low grade/chronic pancreatitis is possible
- Hepatic parenchymal remodeling with intermittent discrete intraparenchymal nodules - benign
- Mild gallbladder debris (non-mucocele)
- Mild chronic renal changes

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Potential for low grade or chronic pancreatitis may be suspected if evidence of cranial abdominal or subxiphoid discomfort on palpation. Further assessment of the intestinal and pancreatic presentation may include a GI panel to include PLI/TLI/Cobalamin/Folate.

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The gallbladder debris is likely incidental given no reported cholestasis, potentially secondary to decreased food intake/anorexia. Empirically, as needed gastrointestinal support, which may include (once the patient is stabilized and eating) hydrolyzed diet trial +/- empirical therapy for low grade to chronic pancreatitis and assessment of clinical response. Neurology consult may be considered.

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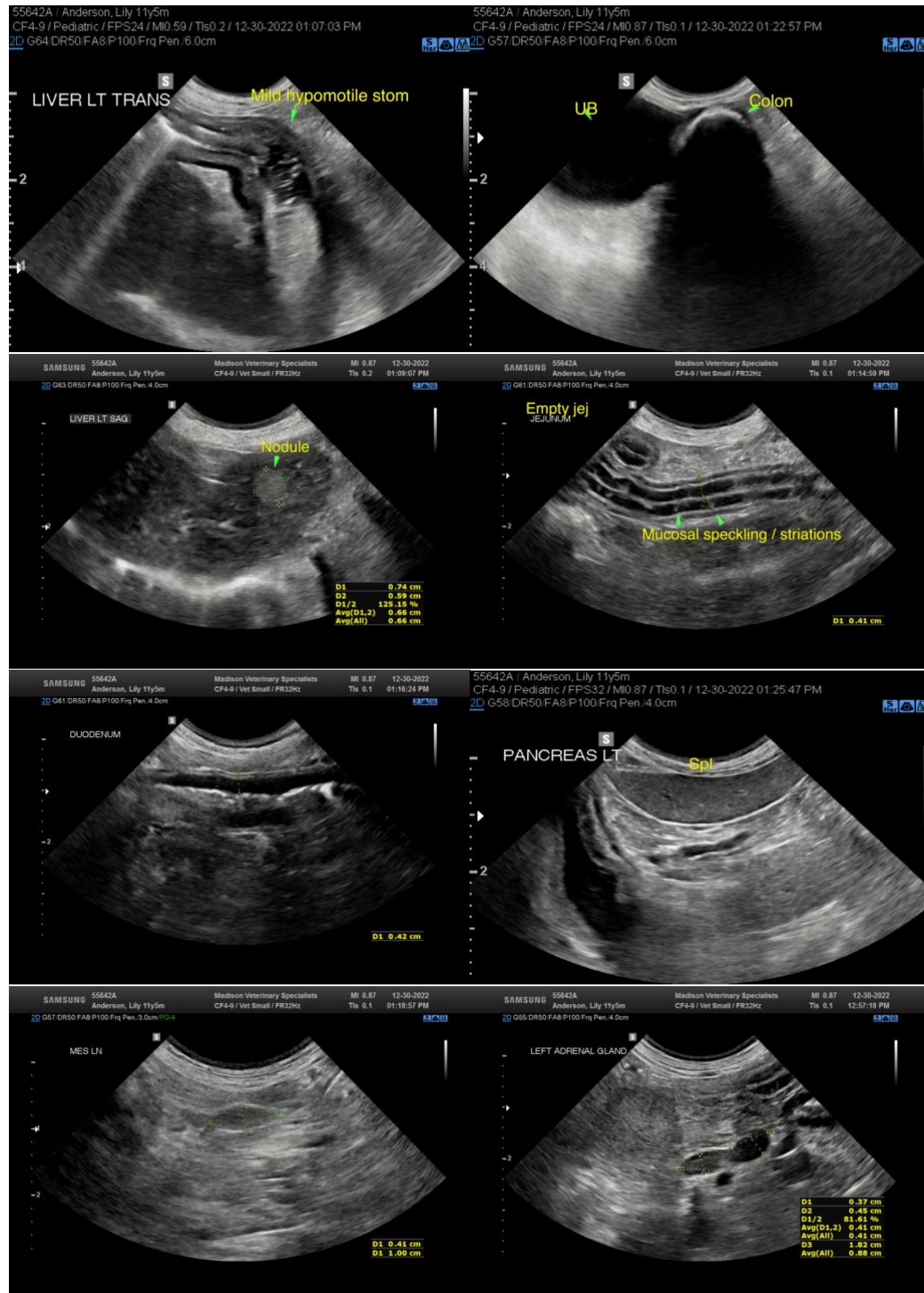
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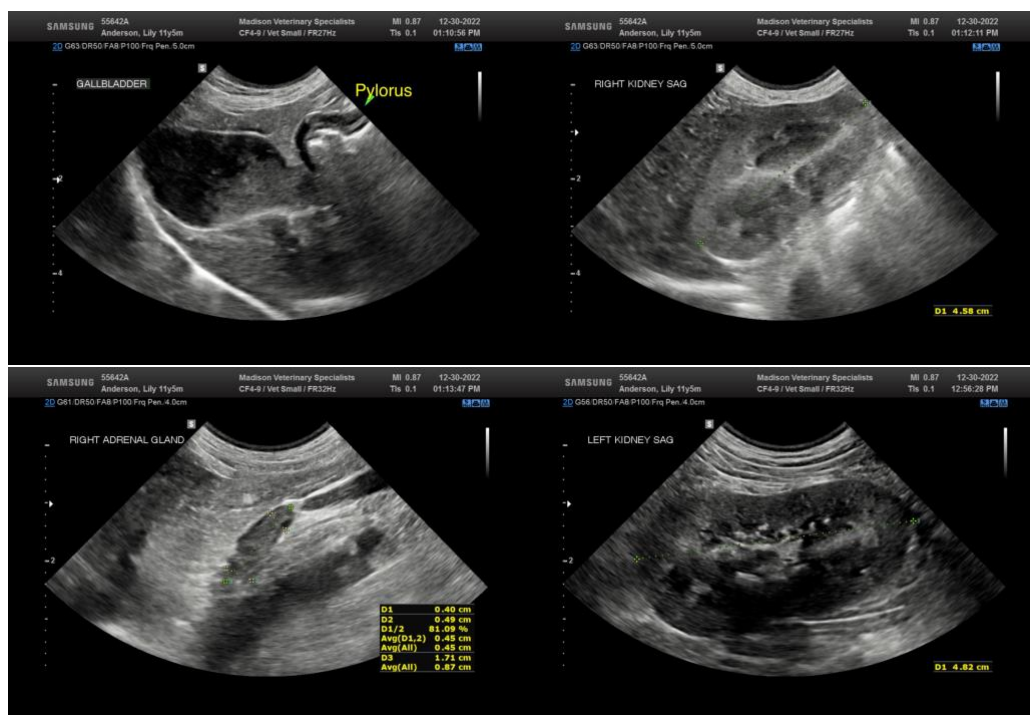
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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