



**PATIENT**

Layla Moulder

**SPECIES**

Canine

**BREED**

Beagle

**SEX**

FS

**AGE**

11 yr

**WEIGHT**

26.4 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Mack

**HOSPITAL NAME**

Northside VC

**REFERRING VET**

Dr. Mack

**INVOICE**

15289

**DATE**

10/27/22

**PRESENTING CLINICAL SIGNS**

Patient presented on 10/14/22 for a dental cleaning. Pre-anesthetic bloodwork revealed elevated liver enzymes. The dental cleaning was rescheduled, however a sedated oral exam was performed. A fleshy swelling was noted behind the molar, around tonsil on right side of mouth. Patient presented again on 10/26/22 for shaking and vomiting. The submandibular lymph nodes were prominent. Dental cleaning still has not been performed.

Abnormal PE/Chem/CBC/UA Results: 10/14/22: -Heartworm test: negative -CHEM: ALT 156, ALKP 1305, TBIL 1.1, CHOL 402 -Radiographs: benign calcification near thyroid gland 10/26/22: -Rads: - Abdomen: Hyperechoic structure in pylorus - Thickening of stomach and intestines - Moderate amount of firm stool in colon -CPL: Abnormal

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 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 was noted.

The area of the aortic trifurcation was free of pathology.

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 6.0 cm in length. The right kidney measured 6.3 cm in length.

**Adrenal Glands**

The left adrenal gland was mildly prominent in size based on caudal pole width measurement in light of body weight. The left adrenal exhibited homogeneous parenchyma and maintained symmetrical capsule contour. The left adrenal gland measured 0.75 cm width at the caudal pole and 0.6 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.51 cm width at the caudal pole and 0.54 cm width at the cranial pole. No evidence of adrenal tumors was noted.

**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.



**PATIENT**

Layla Moulder

***Liver/ Gallbladder***

**SPECIES**

Canine

**BREED**

Beagle

**SEX**

FS

**AGE**

11 yr

**WEIGHT**

26.4 lbs.

The liver exhibited mild to possible moderate generalized enlargement with a maintained symmetrical capsule contour. Generalized Increased parenchyma echogenicity exhibiting moderate coarse echotexture was noted. Intermittent subtle nondisruptive hypoechoic intraparenchymal hepatic nodules were present with an example measuring 1.6 cm in diameter. The gallbladder was non-distended in size containing mild, non dependent, echogenic, nonorganized gallbladder debris. No evidence of gallbladder or peripheral gallbladder inflammatory criteria was noted. The cystic and common bile ducts were normal.

***Gastrointestinal***

The stomach presented intact yet mildly prominent wall layering. The stomach was primarily empty with mild retained anechoic pyloric fluid. A discrete possible nonobstructive shadowing luminal echo measuring approximately 1.0 cm in diameter was present in the gastric body lumen. No evidence of mechanical pyloric outflow obstruction was noted.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material. The jejunum wall measured 0.40 cm width.

**INTERPRETED BY**

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

Normal visible colon wall layers were present with apparent formed feces in lumen.

***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.

**IMAGING PERFORMED BY**

Dr. Mack

***Free Abdomen***

No overt lymphadenopathy or peritoneal effusion was present.

**HOSPITAL NAME**

Northside VC

**ULTRASONOGRAPHIC FINDINGS**

**REFERRING VET**

Dr. Mack

- Hepatopathy exhibiting generalized parenchyma hyperechogenicity with intermittent discrete hypoechoic hepatic nodules - vacuolar hepatopathy, inflammatory / immune mediated disease, nodular hyperplasia, hematopoiesis, infiltrative neoplasia (thought less likely), cholestasis, all potentials
- Mild gallbladder debris (non-mucocele)
- Heterogeneous pancreas - patient / age-related variant vs. low-grade to chronic inflammation
- Mild gastritis pattern with possible discrete nonobstructive luminal echo
- Overtly normal small bowel
- Mild chronic renal changes

**INVOICE**

15289

**DATE**

10/27/22

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**



**PATIENT**

Layla Moulder

Assuming normal clotting status and using a 25-gauge needle, screening hepatic FNA parenchyma and nodule cytology is warranted for further assessment.

**SPECIES**

Canine

Underlying primary adrenal disease is considered a less likely potential, given the lack of clinical signs i.e., PU/PD, polyphagia, etc.

**BREED**

Beagle

Low-grade to chronic pancreatitis may be suspected if evidence of cranial abdominal or subxiphoid discomfort on palpation.

**SEX**

FS

The discrete to indistinct small gastric shadowing echo may indicate gas artifact, focally shadowing ingesta, or medication, while the possibility of a small nonobstructive gastric foreign body cannot be definitively excluded. Given the lack of obstructive criteria, sonographic monitoring of this echo would be reasonable. Alternatively, if continued vomiting or strong suspicion for persistent hyperechoic structure in the pylorus on radiographs, endoscopy would be warranted with potential for biopsies.

**AGE**

11 yr

Hepatosupportive medications including Denamarin and Ursodiol may prove beneficial.

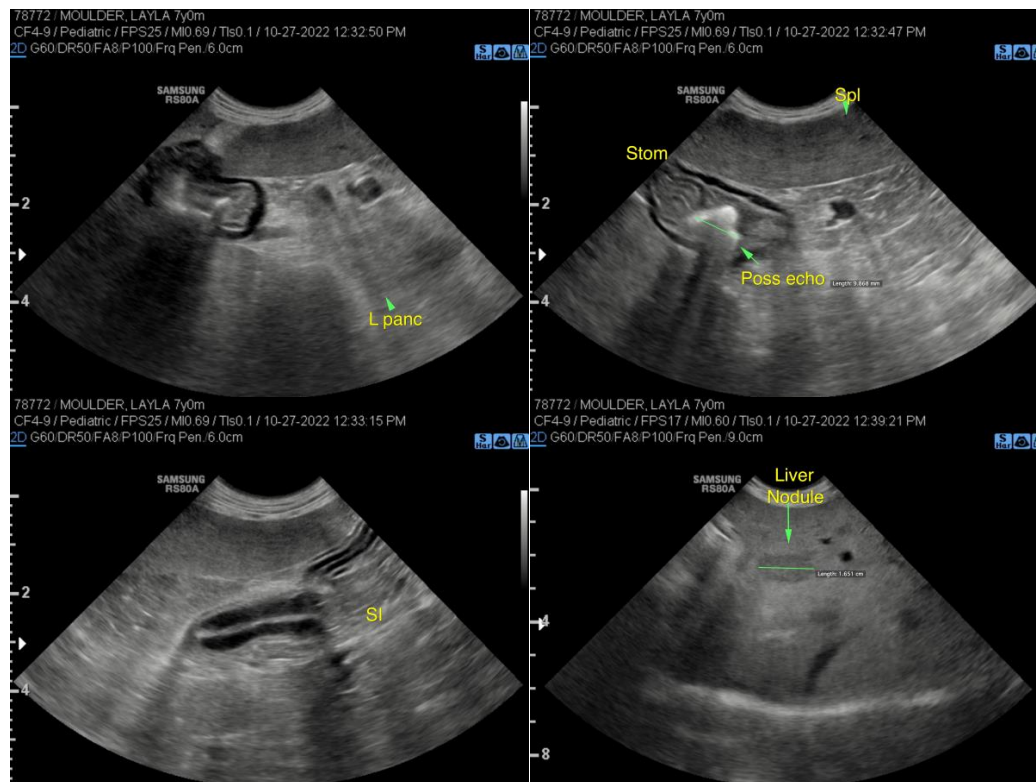
**WEIGHT**

26.4 lbs.

No overt anesthetic contraindications, assuming normal albumin, BUN, glucose, and cholesterol levels indicative of normal hepatic functionality.

**INTERPRETED BY**

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



**IMAGING PERFORMED BY**

Dr. Mack

**HOSPITAL NAME**

Northside VC

**REFERRING VET**

Dr. Mack

**INVOICE**

15289

**DATE**

10/27/22



**PATIENT**

Layla Moulder

**SPECIES**

Canine

**BREED**

Beagle

**SEX**

FS

**AGE**

11 yr

**WEIGHT**

26.4 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Mack

**HOSPITAL NAME**

Northside VC

**REFERRING VET**

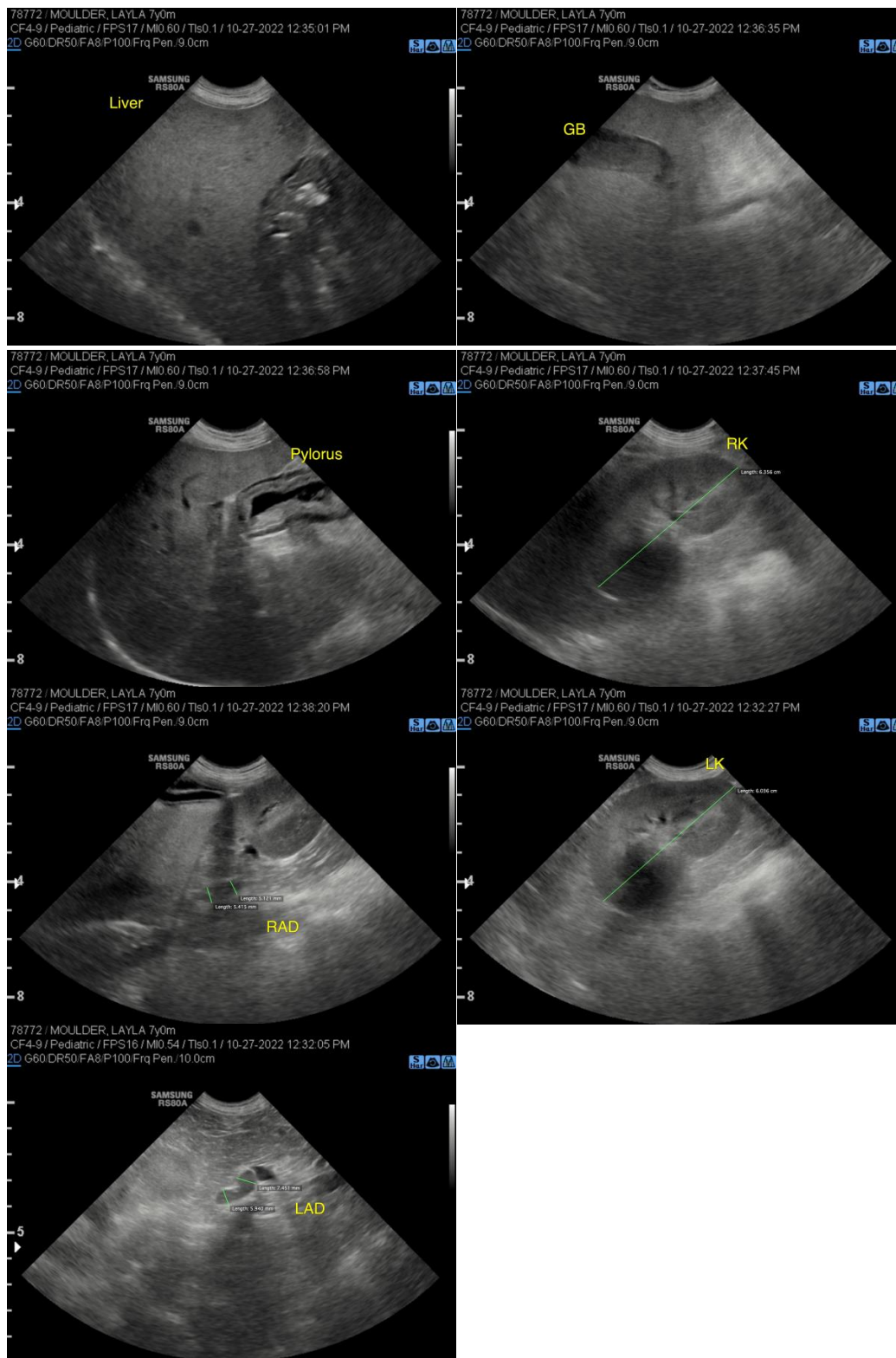
Dr. Mack

**INVOICE**

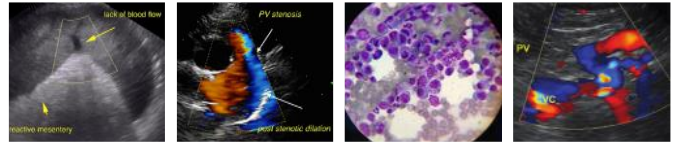
15289

**DATE**

10/27/22



7



**PATIENT**

Layla Moulder

**SPECIES**

Canine

**BREED**

Beagle

**SEX**

FS

**AGE**

11 yr

**WEIGHT**

26.4 lbs.

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Dr. Mack

**HOSPITAL NAME**

Northside VC

**REFERRING VET**

Dr. Mack

**INVOICE**

15289

**DATE**

10/27/22

**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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
**info@SonoPath.com**