



**PATIENT**

Rango Campbell

**SPECIES**

Canine

**BREED**

Aust Shep

**SEX**

MN

**AGE**

13 years

**WEIGHT**

68

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Cathy Carter, DVM

**HOSPITAL NAME**

Willamette VH

**REFERRING VET**

Laura Couser, DVM

**INVOICE**

12284

**DATE**

9/23/21

**PRESENTING CLINICAL SIGNS**

-1st time seizure x2 episodes this morning; aFAST revealed liver mass

Abnormal PE/Chem/CBC/UA Results: Chem = ALT > 1000 (1769 w/ 1:10 dilution), ALKP 1810, CBC and EPOC NSF, thoracic rads negative for mets

**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, sediment, or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

No evidence of pathology was noted in the area of the residual prostate.

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 moderate loss of corticomedullary symmetry and definition expected for the age of the patient. A cortical cyst was present in the caudomedial cortex of the right kidney. The cyst was thinly walled containing anechoic fluid. No evidence of pelvic dilation was present. The left kidney measured 6.1 cm in length. The right kidney measured 7.1 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 0.67 cm width at the caudal pole and 0.72 cm width at the cranial pole. The right adrenal gland was not definitively visualized.

**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. No splenic masses or nodules were noted in the spleen.

**Liver/ Gallbladder**

The liver presented normal in size. The parenchyma of the liver was increased in echogenicity compared to the spleen and renal cortices with nonuniform to patchy echotexture. Reduced distinction and visualization of the portal structures was present. A mildly expansive to subjectively lobulated, echogenic to nonhomogeneous mass was present in the caudoventral aspect of the mid to right liver. The mass measured 8.0 cm x 6.5 cm. The mass appeared to distort the associated hepatic capsule, yet without overt evidence of parenchymal escape. The gallbladder was non distended in size with moderate,



<b>PATIENT</b>	nondependent, mildly congealed gallbladder debris. The cystic duct and common bile ducts were normal without evidence of dilation.
Rango Campbell	
<b>SPECIES</b>	<b><i>Gastrointestinal</i></b>
Canine	The stomach presented intact wall layering with a normal wall layer ratio. Minor retained anechoic pyloric fluid was present. The pylorus wall width measured 0.54 cm.
<b>BREED</b>	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 width measured 0.43 cm.
Aust Shep	
<b>SEX</b>	Normal visible colon wall layers were present with apparent formed feces in lumen.
MN	<b><i>Pancreas</i></b>
<b>AGE</b>	The parenchyma of the left limb, body, and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease were evident.
13 years	
<b>WEIGHT</b>	<b><i>Free Abdomen</i></b>
68	No overt lymphadenopathy or peritoneal effusion was present.
<b>INTERPRETED BY</b>	<b>ULTRASONOGRAPHIC FINDINGS</b>
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	<b><i>Primary Findings</i></b>
<b>IMAGING PERFORMED BY</b>	<ul style="list-style-type: none"> <li>• Chronic hepatopathy with generalized nonuniform to remodeled parenchyma and mid to right caudoventral mass</li> <li>• Moderate gallbladder debris (non-mucocele)</li> <li>• Bilateral chronic renal changes with right kidney cortical cyst</li> </ul>
Cathy Carter, DVM	
<b>HOSPITAL NAME</b>	<b>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</b>
Willamette VH	Considerations for the generalized liver may include vacuolar hepatitis, chronic active hepatitis, cholangiohepatitis, fibrosis, cirrhosis, or other hepatopathy. Neoplasia is favored for the caudoventral mass i.e., adenocarcinoma or other, while the possibility of nodular to regenerative hyperplasia, granuloma, or other non-neoplastic etiology is possible, yet considered less likely. Potential for generalized hepatic neoplasia cannot be definitively excluded. Assuming normal clotting status, hepatic parenchymal and mass lesion FNA may be considered for screening cytology. However, a core biopsy is likely required for a definitive diagnosis.
<b>REFERRING VET</b>	
Laura Couser, DVM	
<b>INVOICE</b>	
12284	No overt evidence of intrahepatic shunting secondary to hepatic parenchymal disease and/ or hepatic mass. Given the seizure activity, bile acid testing, as well as neurology consult, may be considered. A very guarded prognosis is warranted.
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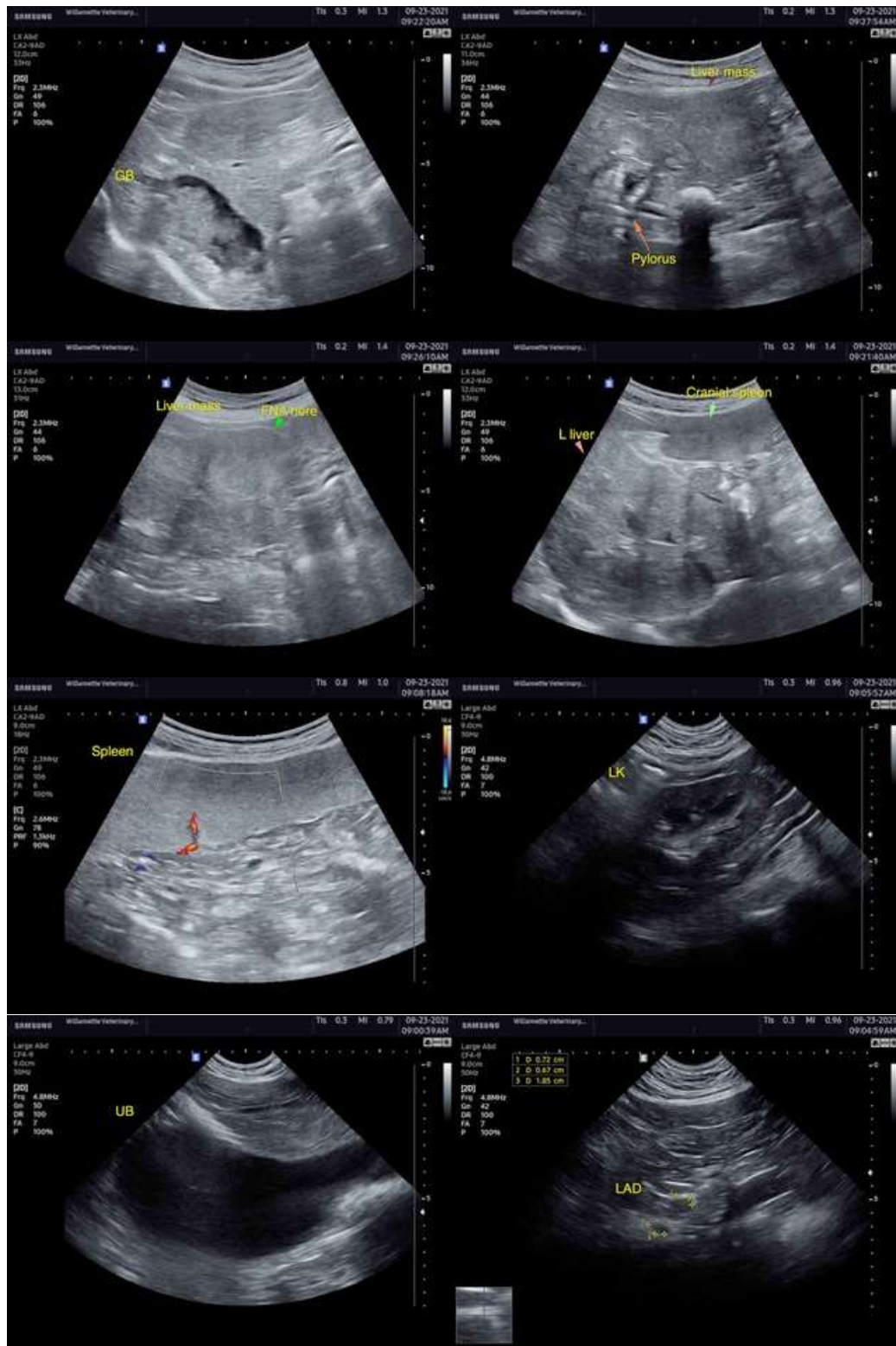
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**referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

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