



## PATIENT

Macie Hughes

## SPECIES

Canine

## BREED

Labrador Retriever

## SEX

Female Spayed

## AGE

13y

## WEIGHT

56 lbs

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Griffin

## HOSPITAL NAME

Northside VC

## REFERRING VET

Griffin

## INVOICE

13044

## DATE

1/9/26

## PRESENTING CLINICAL SIGNS

History: Presented for hip issues but on exam was concerned how firm abdomen was on palpation in region of the liver

Abnormal PE/Chem/CBC/UA Results: PE: right cranial abdomen pain even with sedation and pain medication CBC: WNL SDMA:20 BUN: 52 ALT: 146 ALKP: 758

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

The area of the aortic trifurcation was free of pathology.

Normal size and margination was 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 to moderate, indistinct loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 6.2 cm in length. The right kidney measured 6.4 cm in length.

### Adrenal Glands

The left adrenal gland was normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 0.77 cm width in the caudal pole. The right adrenal gland was indistinctly visualized owing to patient discomfort.

### Spleen

The spleen was normal in size with areas of mild medial capsule asymmetrical contour and probable medial capsule fibrosis with hypoechoic perihilar parenchyma. Generalized non-homogeneous parenchyma exhibiting intermittent, primarily non-expansive to discrete, hypoechoic nodules with an example measuring 1.2 cm in diameter.

### Liver

The liver was subjective mildly enlarged in size with asymmetrical capsule contour and marked non-homogeneous to nodular hepatic parenchyma. Mid liver hyperechoic parenchyma nodule was present measuring 2.5 cm in diameter. Adequate vascular volume noted. The gallbladder was non distended in size with mild, primarily non-organized, peripheral, echogenic, nonmineralized lumen biliary sludge. Normal gallbladder wall without evidence of thickening or edema. No evidence of pericholecystic inflammation or effusion. The common bile duct was not visualized with no evidence of post hepatic obstruction.

### Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.



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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.

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

## Pancreas

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 was evident.

## Free Abdomen

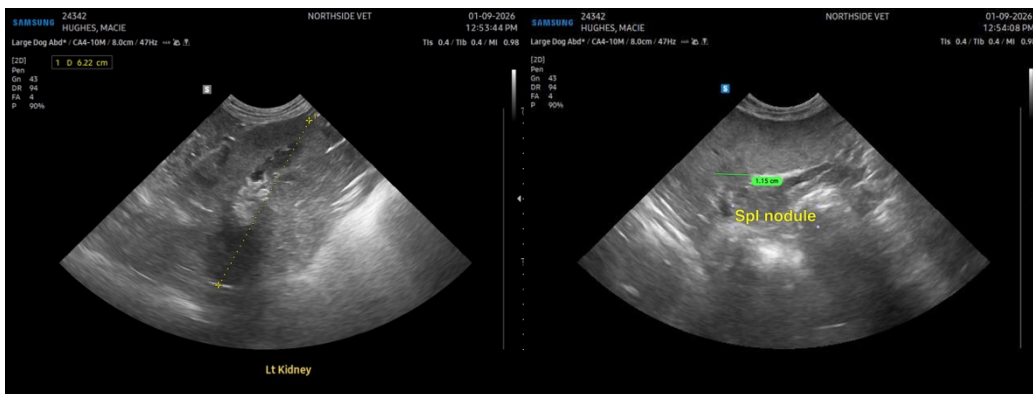
No overt lymphadenopathy or peritoneal effusion was present.

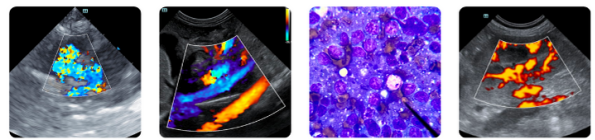
## ULTRASONOGRAPHIC FINDINGS

- Marked non-homogeneous to nodular liver with mid liver intraparenchymal hyperechoic nodule
- Non-organized, primarily peripheral lumen gallbladder debris
- Non-homogeneous, discretely nodular spleen
- Bilateral chronic renal changes
- Normal left adrenal gland

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic nonspecific to active pancreatitis, vacuolar/cholestatic hepatopathy, hyperplasia, fibrosis to merging cirrhosis, hepatotoxicosis, i.e. copper, neoplasia or potential combined hepatopathies possible. The gallbladder did not meet classic neoplastic criteria and without overt sonographic evidence of gallbladder or peripheral gallbladder inflammation, is of unclear clinical significance. Age-related/benign spleen changes, i.e. red/white pulp differentiation, hyperplasia, hematopoiesis, perihilar myelolipomas or concurrent splenic neoplasia possible. Assuming normal clotting status and using 25-gauge needle, initial hepatosplenic FNA cytology could be considered. Hepatic biopsies with consideration for prophylactic cholecystectomy and splenectomy likely required for definitive diagnosis. Hepato-supportive medications and concurrent supportive care with clinical and as needed sonographic monitoring would be reasonable.





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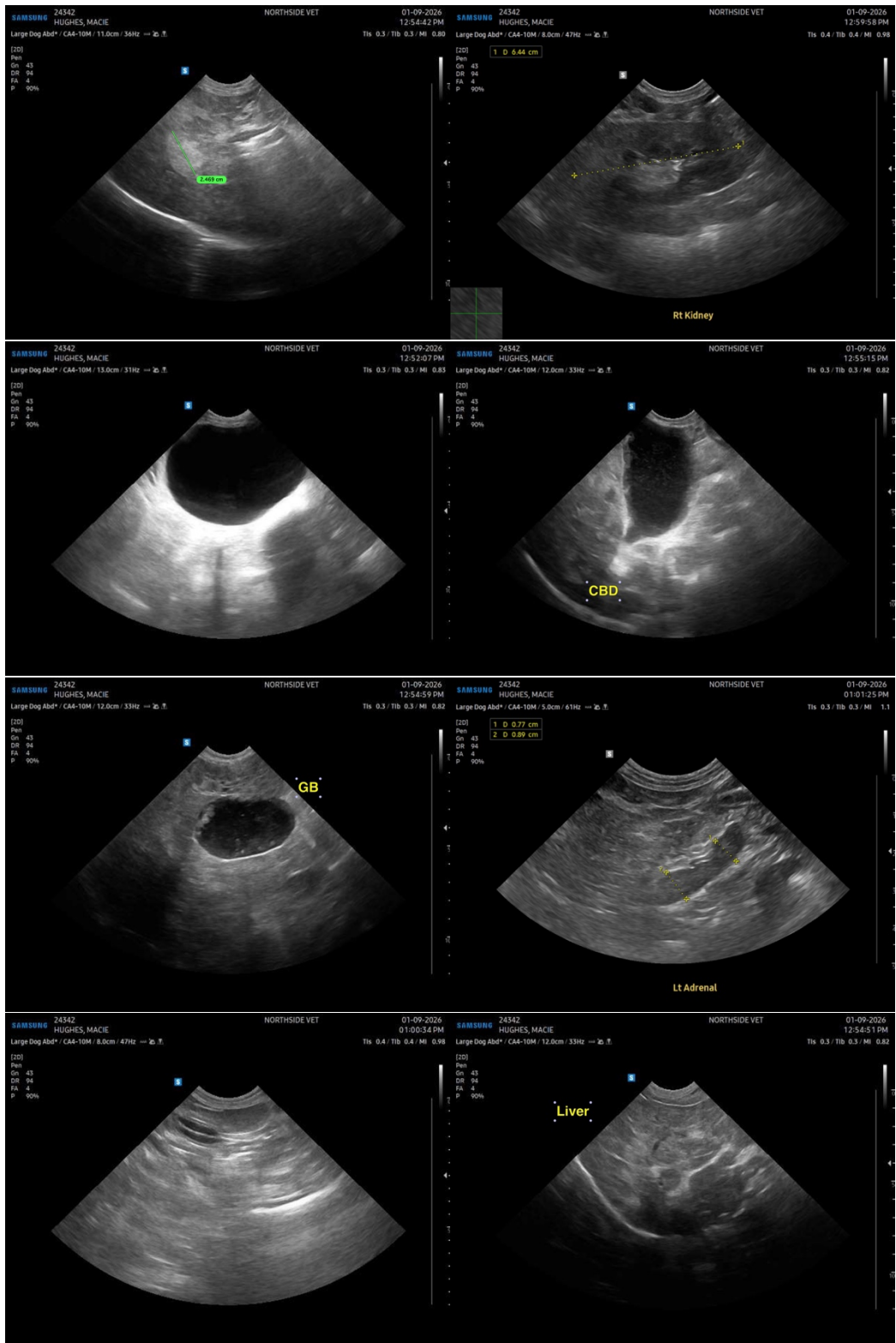
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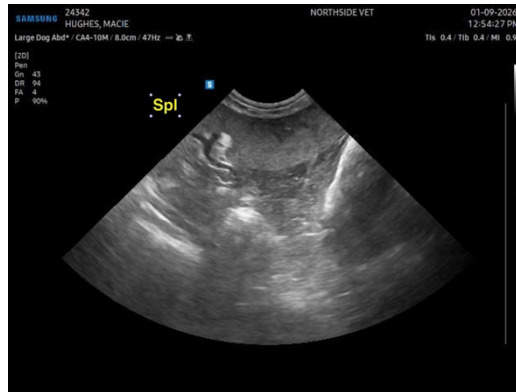
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

[info@sonopath.com](mailto:info@sonopath.com)