

**PATIENT**

Ginger Rose Hull

**SPECIES**

Canine

**BREED**

Golden Retriever

**SEX**

FS

**AGE**

12 years

**WEIGHT**

77.8 lbs.

**INTERPRETED BY**R. McKenzie Daniel,  
DVM, DABVP (Canine  
and Feline)**IMAGING  
PERFORMED BY**

Amy Mayhew LVT

**HOSPITAL NAME**

SVS Imaging MI

**REFERRING VET**

Kimball AH

**INVOICE**

15441

**DATE**

11/9/22

**PRESENTING CLINICAL SIGNS**

History of liver issues.

Abnormal PE/Chem/CBC/UA Results: Elevated liver values - recent lab results attached.

**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 7.6 cm in length. The right kidney measured 7.4 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 0.59 cm width at the caudal pole and 0.71 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 0.61 cm width at the caudal pole. No evidence of adrenomegaly or tumors.

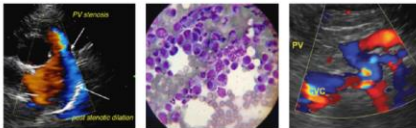
**Spleen**

The spleen was overall normal in size and contour with mild generalized parenchyma heterogeneity exhibiting a solitary, mildly expansive, mixed echogenic, potentially mild cavitated mass in the caudal spleen. Mild distortion of the associated splenic capsule is present, yet without evidence of parenchyma escape. The splenic mass measured 4.1 cm in diameter. Normal splenic vascularity was present.

**Liver/ Gallbladder**

The liver was moderately enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. A solitary, mildly expansive, primarily spherical, solid, nonhomogeneous mass was noted occupying the majority of the mid-liver parenchyma measuring 11.0-12.0 cm in diameter. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non-distended in size with mildly prominent to hyperechoic gallbladder walls containing primarily anechoic content with mild nondependent mildly congealed yet nonorganized hyperechoic sludge. The cystic and common bile ducts were normal.

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***Gastrointestinal***

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained minor luminal ingesta without signs of obstruction or foreign material.

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. Mild duodenal nonspecific mucosal speckling was present.

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, likely consistent with age-related pancreatic changes and incidental. No signs of active inflammation or neoplasia.

***Free Abdomen***

No omental masses, lymphadenopathy, or evidence of peritoneal free fluid were noted.

Rapid view of the heart revealed no evidence of pericardial masses or effusion in the visible window.

**ULTRASONOGRAPHIC FINDINGS*****Primary Findings***

- Liver mass - hyperplasia, hematopoiesis, hepatoma, granuloma, malignant neoplasia possible
- Mild chronic cholecystitis pattern with mild nondependent hyperechoic sludge (non-mucocele)
- Concurrent mildly expansive nonhomogeneous potentially mildly cavitated caudal splenic mass - hematopoiesis, hematoma, splenitis, emerging malignant splenic neoplasia i.e., hemangiosarcoma, or other

***Secondary Findings***

- Mild chronic renal changes

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Assuming normal clotting status and using a 25-gauge needle, FNA cytology of the hepatic mass +/- splenic mass could be considered for further clarification. No evidence of additional potential intraabdominal neoplastic criteria / metastasis.

Subjectively, complete resection of the hepatic mass appears to be precluded given its size, likely involvement of more than one liver lobe, and potential extension into the porta hepatis.

Assuming no evidence of pathology on three view chest radiographs, splenectomy with hepatic biopsy could be considered. Hepatosupportive medications and sonographic monitoring of both the liver and spleen, if surgery is not a possibility in this case, would be reasonable.

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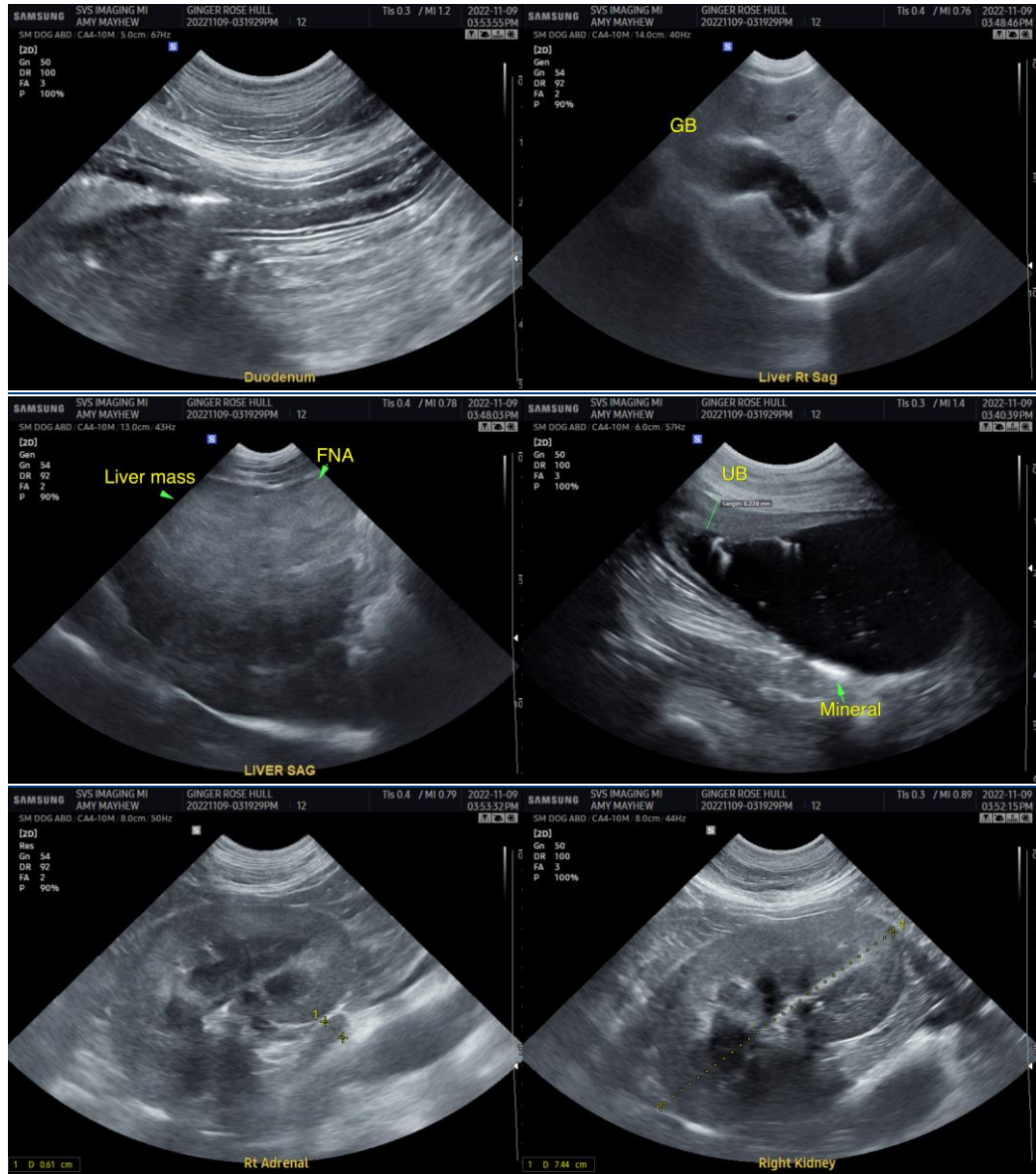
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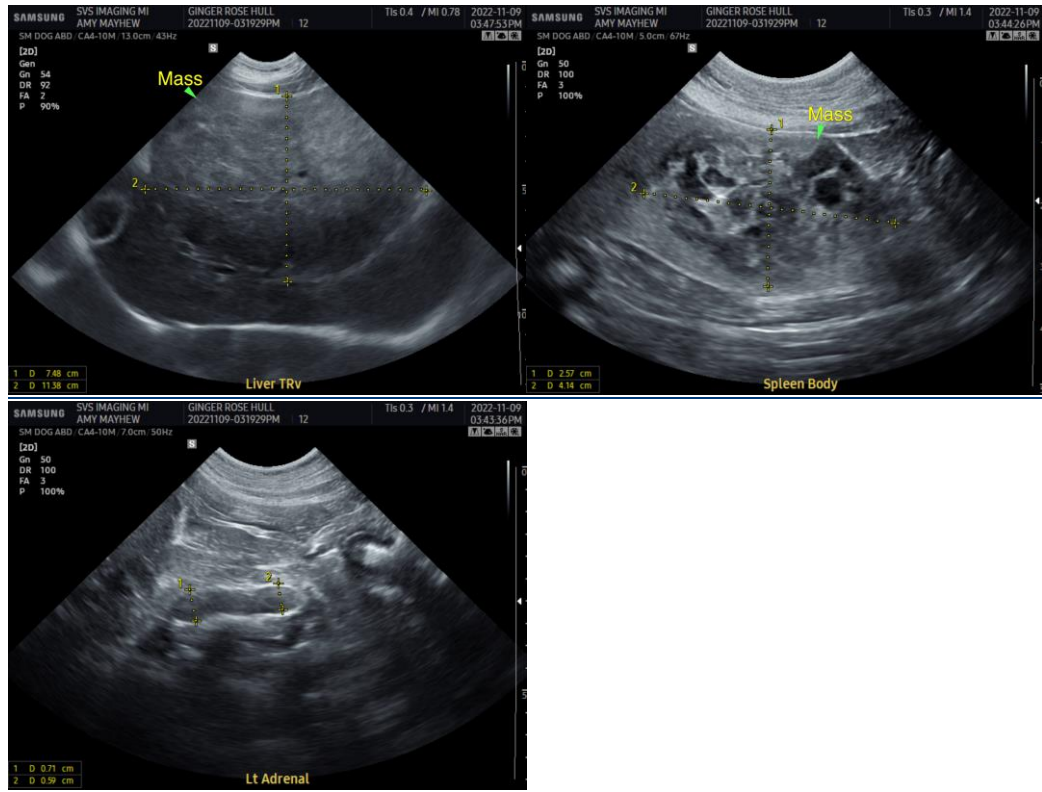
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**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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