

**PATIENT**

Lucee Woodruff

**SPECIES**

Canine

**BREED**

Old English Bulldog

**SEX**

FS

**AGE**

9 yrs, 11 mos

**WEIGHT**

83 lbs.

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

Amy Mayhew LVT

**HOSPITAL NAME**

SVS Imaging MI

**REFERRING VET**

Family Pet Practice

**INVOICE**

14809

**DATE**

9/6/22

**PRESENTING CLINICAL SIGNS**

Current Medications: Simparica Trio, RC GILF Patient History: Presented for 3 month recheck AUS to monitor progression. See previous AUS results below

Abnormal PE/Chem/CBC/UA Results: Abnormal Examination Findings: AUS results 6/14/22:  
**PRIMARY FINDINGS** • Bilateral adrenomegaly - The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended. • Mottled spleen - The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis. • Heterogeneous liver with iso- to hypochoic mass effect - The diffuse hepatic changes are non specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. The mass lesion observed appears to be arising from the liver, and could represent a benign or neoplastic process. **SECONDARY FINDINGS** • Prominent, mottled pancreas - The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The urinary bladder, trigone, and cystourethral junction 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 6.7 cm in length. The right kidney measured 6.7 cm in length.

**Adrenal Glands**

The bilateral adrenal glands were mildly prominent in size. Subtle capsule asymmetry was present with nonhomogeneous, nonmineralized adrenal parenchyma without suspicion for overt neoplasia. The left adrenal gland measured 0.85 cm width in the cranial pole and 0.84 cm width in the caudal pole. The right adrenal gland measured 0.81 cm width in the cranial pole and 1.16 cm width in the caudal pole.

**Spleen**

The spleen was normal in size with maintained symmetrical capsule contour and generalized mild splenic parenchyma heterogeneity. Intermittent discretely hypochoic nondisruptive nodules were present. An example measured 0.86 cm in diameter. Normal splenic vascularity was present.

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***Liver/ Gallbladder***

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. Intermittent mildly hyperechoic to nonhomogeneous intraparenchymal nodules were present with an example measuring 1.6 cm in diameter. Previously noted spherical Isoechoic to nonhomogeneous mass was present in the area of the right caudal liver measuring approximately 6.3 cm in diameter. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

***Gastrointestinal***

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained moderate, hyperechoic to focally shadowing ingesta/chyme.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Segmental duodenojejunal nonshadowing ingesta / chyme 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. No signs of active inflammation or neoplasia.

***Free Abdomen***

Focal to intermittent mesenteric lymph nodes were present. The lymph nodes were essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5). The lymph nodes were not consistent with inflammatory or neoplastic criteria. An example lymph node measured 1.5 cm x 0.68 cm. No effusion was noted.

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

- Static discrete splenic nodules
- Chronic hepatopathy exhibiting generalized irregular to intermittent nodular parenchyma
- Previously noted isoechoic caudal hepatic mass
- Mild age-related kidneys
- Pancreatic remodeling
- Static bilateral prominent adrenal glands

***Secondary Findings***

- Gastric and segmental small intestinal ingesta



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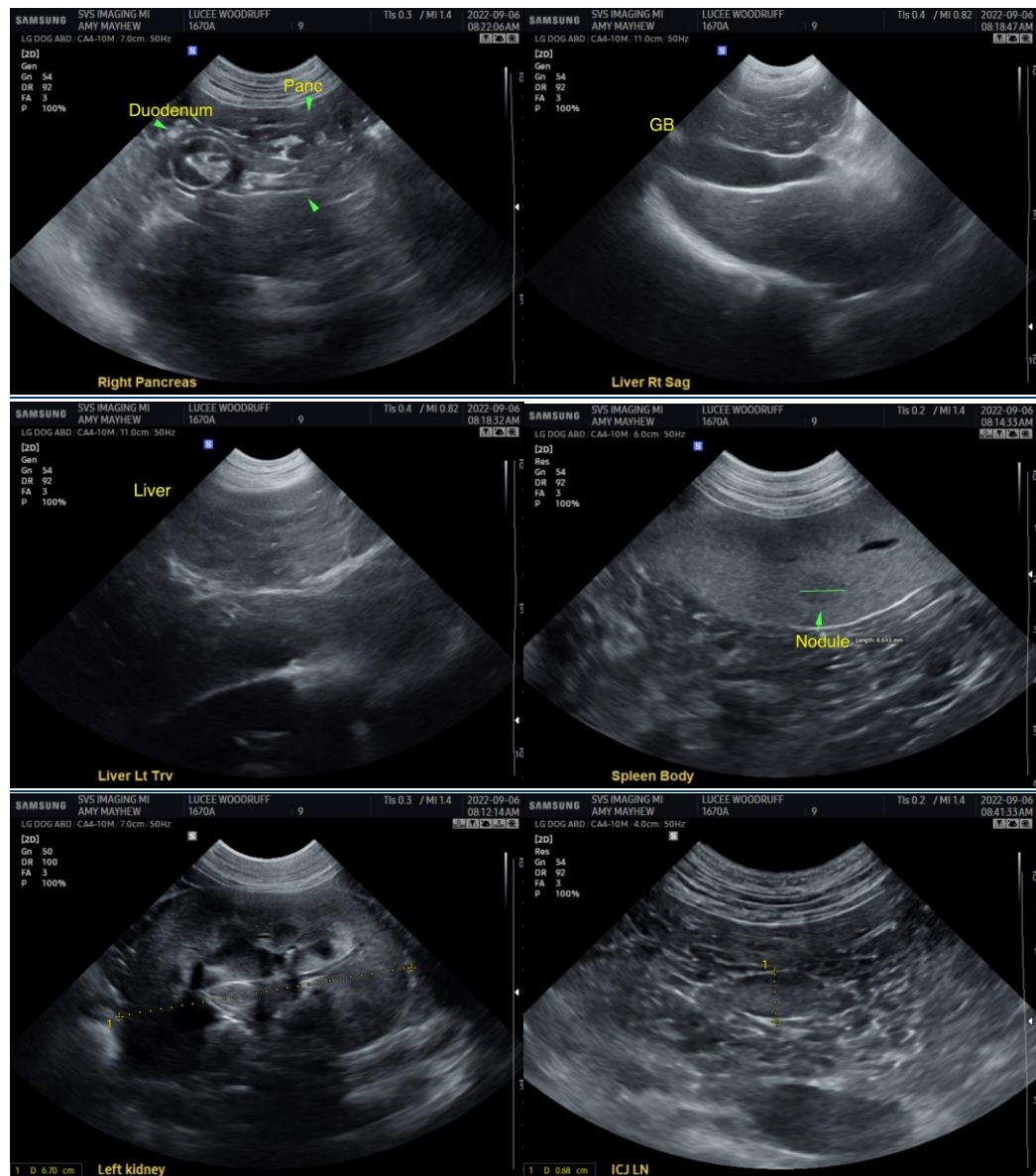
9/6/22

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Overall, static abdomen with similar appearing previously noted abnormalities. Potential for mild progressive increased size of the previously noted Isoechoic right caudal liver mass, although overall similar subjective appearance and echogenicity, is noted. Differential diagnoses for the generalized liver and hepatic mass still apply with potential for hepatoma-like mass. If not done, further assessment may include hepatic parenchymal and mass FNA for screening cytology.

Likewise, concurrent screening splenic FNA cytology, using a 25-gauge needle, could be considered, although suspect probable benign splenic changes i.e., hyperplasia, hematopoiesis, small hematomas, incidental splenitis or similar.

Sonographic monitoring of the previously noted and current overall static abdominal abnormalities for evidence of progression would be a more conservative approach.



**IMAGING PERFORMED BY**

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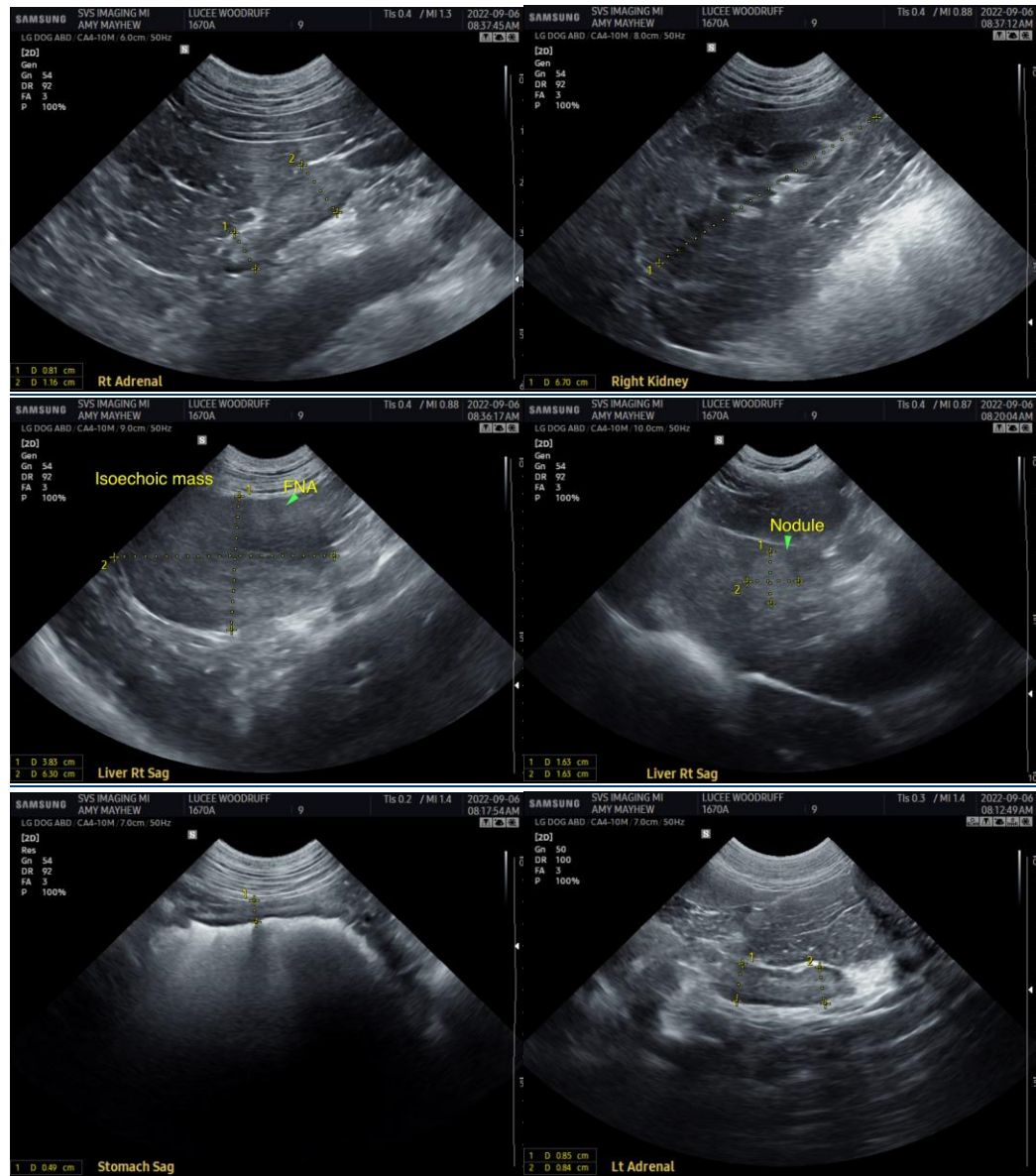
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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