

**PATIENT**

Brandy Keller

SPECIES

Canine

BREED

Lab

SEX

SF

AGE

9 years

WEIGHT

115 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Sarah Pender, CVT

HOSPITAL NAME

SVS Imaging QC

REFERRING VET

Dr. Joy

INVOICE

12807

DATE

12/14/21

PRESENTING CLINICAL SIGNS

Resting after walking short distance, leaving head down, decreased appetite and drinking, breathing heavily

Abnormal PE/Chem/CBC/UA Results: CBC/Chem elevated ALKP, everything else WNL Extremely distended abdomen. Abdominocentesis = 7 liters of serosanguineous fluid

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 4.0 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. Multiple cortical infarctions were present in the right kidney. No evidence of pelvic dilation was present. The left kidney measured 7.0 cm in length. The right kidney measured 6.8 cm in length.

Adrenal Glands

The left and right adrenal glands were not definitively visualized owing to the presence of peritoneal free fluid and patient size.

Spleen

The spleen exhibited mild subnormal size potentially owing to volume contraction with 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.

Liver/ Gallbladder

The liver exhibited generalized enlargement with overall mild increased hepatic parenchyma echogenicity. Multiple, variably echogenic, Intraparenchymal nodules were present. An example of a liver nodule measured 2.0 cm in diameter. The cranial abdominal caudal vena cava at the level of the liver and diaphragm exhibited subjective distention without evidence of thrombosis measuring 1.9 cm in diameter. The gallbladder was normal in size with echogenic, nonmineralized biliary sludge. No overt evidence of gallbladder wall edema was noted. The cystic duct and common bile ducts were normal without evidence of dilation.

**PATIENT*****Gastrointestinal***

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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.

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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 were evident.

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Free Abdomen

Severe peritoneal free fluid exhibiting subjective mild cellular component was present.

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Transdiaphragmatic view of the heart revealed subjective chamber enlargement, as well as potential for possibly tachycardia and subjective reduced fractional shortening. Suspected concurrent pleural effusion was noted. No overt lymphadenopathy was noted. The omentum exhibited overall uniform echogenicity.

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ULTRASONOGRAPHIC FINDINGS***Primary Findings***

- Hepatomegaly exhibiting multifocal variably echogenic intraparenchymal nodules
- Severe peritoneal free fluid exhibiting mild cellular component - suspect concurrent pleural free fluid
- Subjective dilated cranial abdominal caudal vena cava
- Subjective cardiac chamber enlargement with potential for tachycardia and suspect potential systolic dysfunction

Secondary Findings

- Bilateral chronic renal changes with multiple right kidney cortical infarctions

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the subjective cardiac presentation, as well as dilated caudal vena cava, cardiogenic peritoneal and likely pleural effusion is considered the primary differential diagnosis. However, potential for primary hepatic parenchymal disease, given the nodular changes, may be possible. The hepatic nodules may indicate areas of nodular to regenerative hyperplasia, hematopoiesis, or lipogranulomas, while the possibility of generalized to nodular hepatic neoplasia cannot be excluded. Further correlation with peritoneal effusion analysis, coagulation panel +/- hepatic FNA for screening cytology, as well as full echocardiographic work up is recommended.

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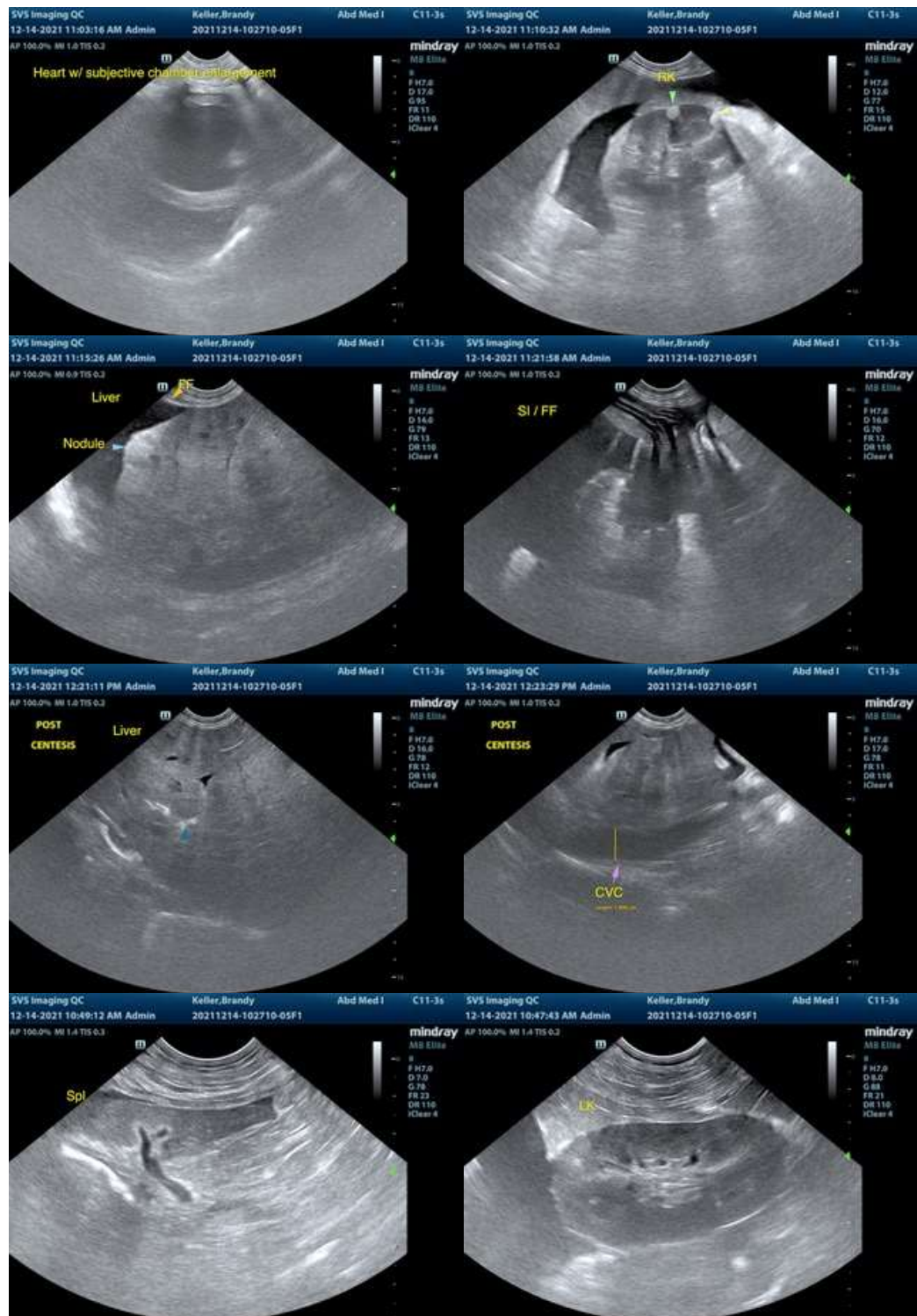
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not



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visible in the image/video clips provided.

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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.

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info@SonoPath.com

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