



**PATIENT**

Rayne Collins

**SPECIES**

Canine

**BREED**

Retriever Mix

**SEX**

FS

**AGE**

13yr

**WEIGHT**

29lb

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jessica Miller

**HOSPITAL NAME**

Westwood Regional  
Veterinary Hospital

**REFERRING VET**

Dr. Silver

**INVOICE**

11318ag

**DATE**

08/08/2022

**PRESENTING CLINICAL SIGNS**

History: Not eating/acting lethargic. Suspect Gall stones.

Abnormal PE/Chem/CBC/UA Results: Mild anemia, mod to severe  $\wedge$  calcium

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 cm exhibited normal thickness and tone. Mild asymmetrical luminal surface to micropolypliod changes were present likely associated with age related mural changes. 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 were noted.

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 moderate loss of corticomedullary symmetry and definition expected for the age of the patient. Mild bilateral pelvic dilation was present. The left kidney exhibited intermittent cortical cysts along with mild hyperechoic corticomedullary nodules and example measuring 0.67 cm in diameter. The left kidney measured 6.2 cm in length. The right kidney measured 6.1 cm in length.

The area of the aortic trifurcation was free of pathology.

The area of the iliac trifurcation was free of pathology including no evidence of medial, iliac or sublumbar lymphadenopathy.

No overt pathology in the area of the uterine remnant.

**Adrenal Glands**

The bilateral adrenal glands were normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 0.83 cm width in the cranial pole and 2.6 cm length. The right adrenal gland measured 0.63 cm width in the cranial pole and 2.2 cm length.

**Spleen**

The spleen exhibited overall normal size with asymmetric lateral and medial capsule contour. Generalized parenchyma heterogeneity with multiple expansive hypoechoic nodules were present, an example measuring 1.6 cm in diameter. The nodules appeared to subtly distort the associated capsule without evidence of escape. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis.

**Liver**

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. A solitary indistinct deep intraparenchymal hyperechoic nodule was present measuring 1.3 cm in diameter. The nodule did not meet neoplastic criteria with lipogranuloma or focal nodular hyperplasia suspected. 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 with primarily dependent hyperechoic luminal debris. The cystic and common bile ducts were normal.



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**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.

**BREED**

**Pancreas**

Retriever Mix

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.

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FS

**Free Abdomen**

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

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Several spherical hypoechoic subcutaneous nodules exhibiting evidence of mineralization were present along the ventral subcutaneous space, an example measuring 2.0 cm in diameter.

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

**WEIGHT**

29lb

**ULTRASONOGRAPHIC FINDINGS**

- Non-homogeneous to irregular spleen exhibiting hypoechoic nodules
- Bilateral chronic renal changes with bilateral pyelectasia and left kidney hypoechoic nodules
- Several spherical hypoechoic to mineralized ventral subcutaneous nodules
- Hepatic parenchyma remodeling with solitary intraparenchymal nodule
- Unremarkable GI tract

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Although sampling is required for further assessment the splenic presentation is suggestive of infiltrative splenic round cell neoplasia such as lymphoma, mast cell neoplasia or other. Potential for multicentric neoplasia is of primary concern. Correlation with pending cytology is recommended with potential for oncology consult if neoplastic process is confirmed. Three view chest radiographs suggested if not done to rule out thoracic pathology.

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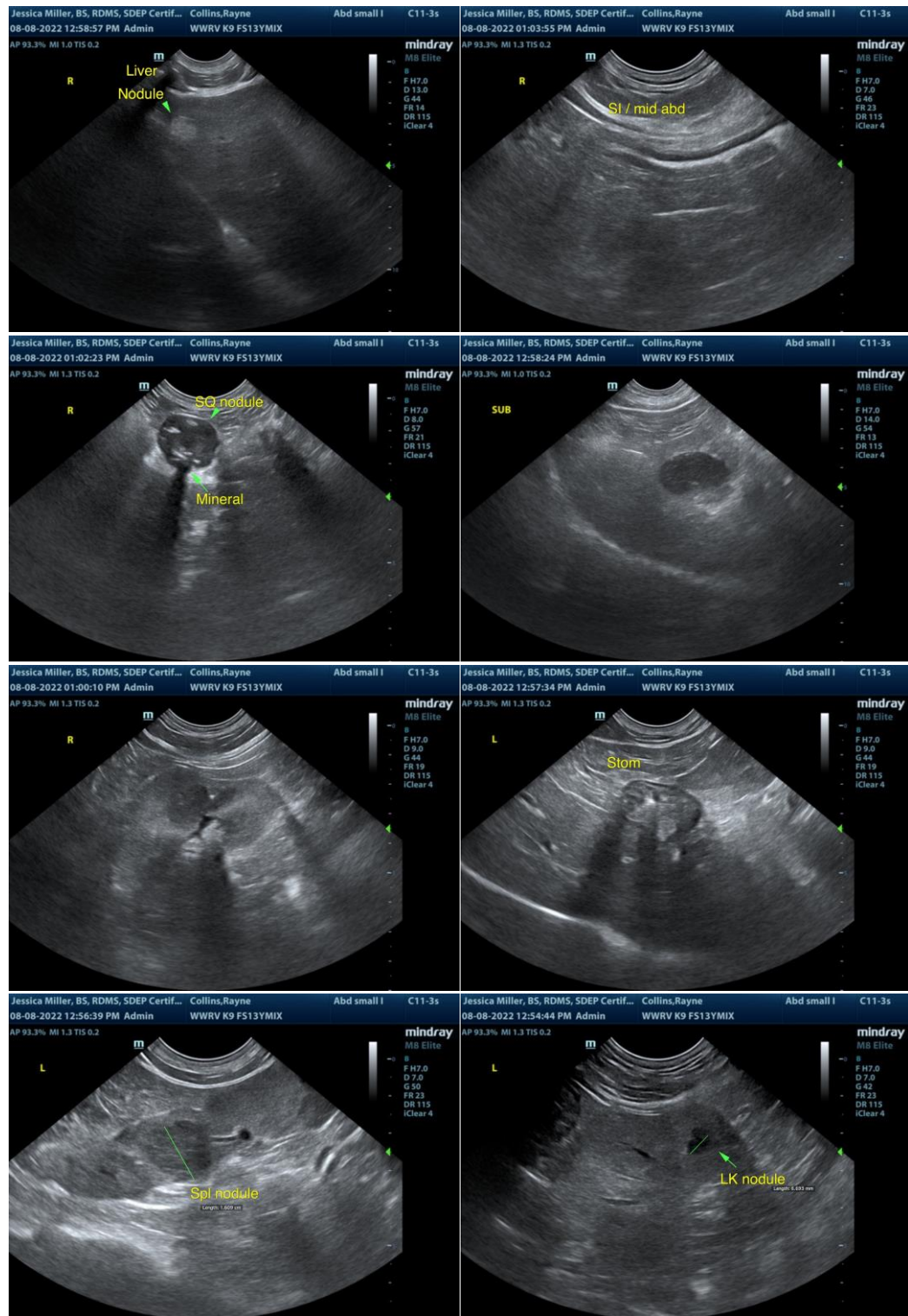
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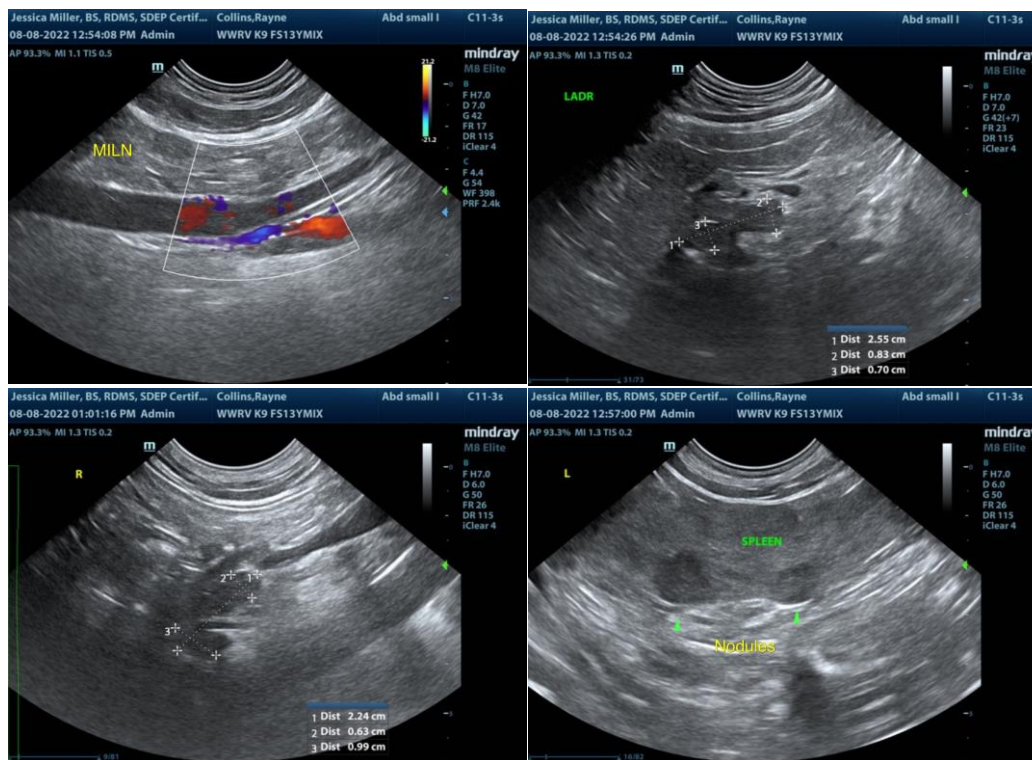
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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