



**PATIENT**

Ringo Cassidy

**SPECIES**

Canine

**BREED**

Lab

**SEX**

MN

**AGE**

11

**WEIGHT**

73

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenn

**HOSPITAL NAME**

Rockaway AH

**REFERRING VET**

Dr. Maniar

**INVOICE**

16521

**DATE**

4/6/23

**PRESENTING CLINICAL SIGNS**

vomiting increased ALT ALP decreased WBC

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

The residual prostate was free of pathology.

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 and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 6.5 cm in length. The right kidney measured 6.6 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 0.75 cm width at the caudal pole and 0.81 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 0.98 cm width at the caudal pole.

**Spleen**

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. 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. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

**Liver/ Gallbladder**

The liver was normal to possible borderline subnormal in size with areas of capsule asymmetry. The liver exhibited generalized nonuniform parenchyma exhibiting intermittent uniform to isoechoic parenchymal nodules. An example of a liver nodule measured 2.6 cm in diameter. Indistinct portal vascular borders were noted. The gallbladder was non-distended in size containing anechoic content with minor nonorganized echogenic gallbladder debris. No evidence of gallbladder inflammatory criteria was noted. The common bile duct was normal.

**Gastrointestinal**

The stomach presented mild to moderate wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. The stomach contained mild to



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moderate retained anechoic fluid. No evidence of mechanical pyloric outflow obstruction was noted. The gastric body wall width measured 0.50 cm.

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The small intestine presented intact wall layering and maintained a 1:3 muscularis/mucosa ratio with subjective propensity for subtly prominent intestinal muscularis layer. No obstructive pattern was noted.

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Normal visible colon wall layers were present with soft to nonformed fecal matter was present in the colon.

## Pancreas

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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

No overt lymphadenopathy or peritoneal effusion was present.

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## ULTRASONOGRAPHIC FINDINGS

- Nonuniform / nodular liver - consistent with chronic hepatopathy, chronic active hepatitis, fibrosis, cirrhosis, vacuolar hepatopathy, hyperplasia, hematopoiesis, less likely infiltrative neoplasia are all potentials
- Mild gallbladder debris (non-mucocele)
- Inflammatory gastroenteropathy pattern with hypomotile stomach

## INTERPRETED BY

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(Canine and Feline)

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Bile acid testing is suggested, especially if evidence of hepatic dysfunction, i.e., subnormal BUN, glucose, albumin, or cholesterol levels. The possibility of progressive to emerging end-stage hepatopathy, depending upon the degree of hepatic enzyme elevations, cannot be excluded. As-needed gastrointestinal support and empirical therapy for gastroenteritis would be reasonable. Hepatic and gastrointestinal biopsies are likely required for a definitive diagnosis.

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## REFERRING VET

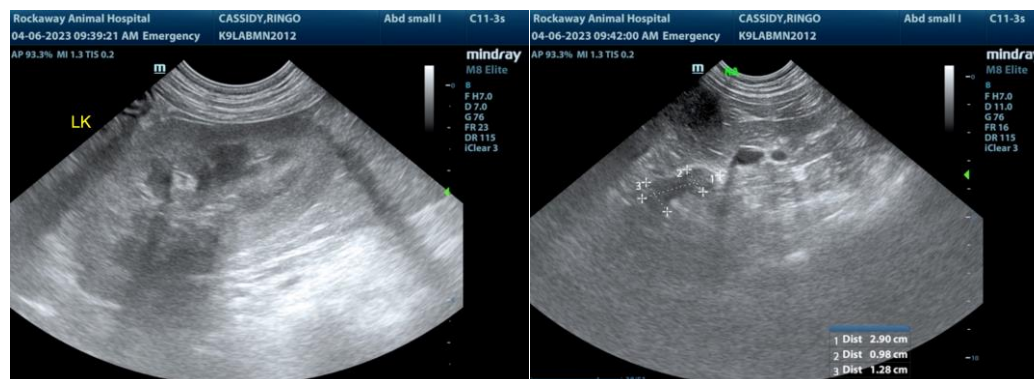
Dr. Maniar

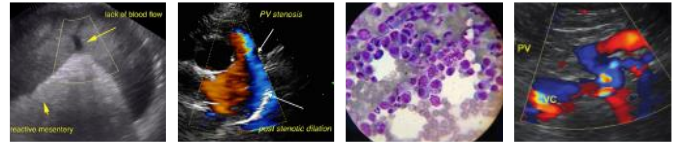
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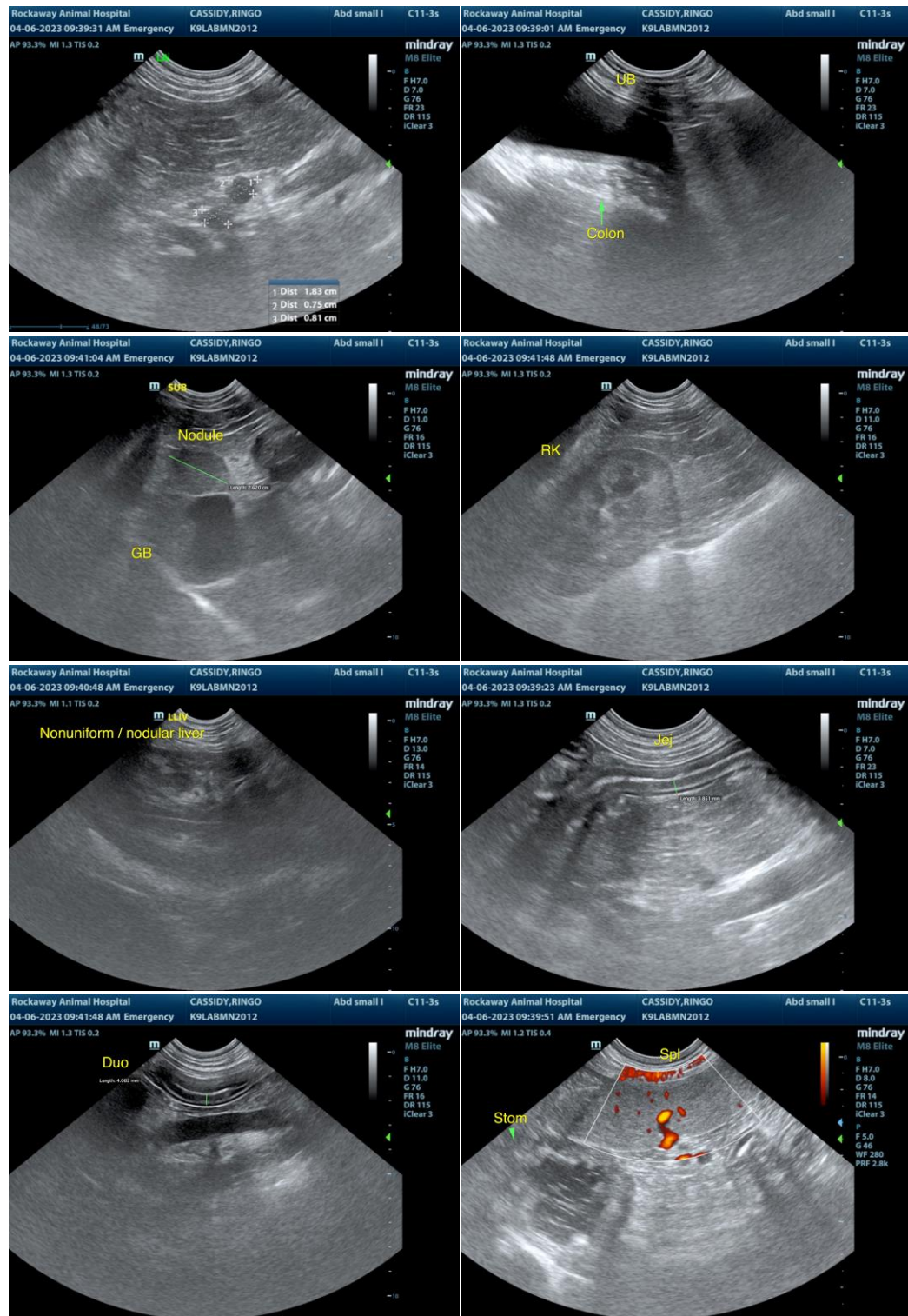
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



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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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