



**PATIENT**

Milo Im

**PRESENTING CLINICAL SIGNS**

Non-regenerative anemia. High liver values. Chronic vomiting. High amylase. Hematuria.

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**BREED**

Whippet Mix

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.

**SEX**

No overt pathology in the area of the residual prostate.

M/N

The area of the aortic trifurcation was free of pathology.

**AGE**

12 years

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 5.3 cm in length. The right kidney measured 5.8 cm in length. Pinpoint medullary and pelvic mineral were noted in both kidneys.

**WEIGHT**

15.3 kg

**Adrenal Glands**

**INTERPRETED BY**

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

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 0.59 cm width in the cranial pole and 0.47 cm width in the caudal pole. The right adrenal gland measured 0.61 cm width in the caudal pole.

**IMAGING PERFORMED BY**

Dave Stasiuk RDMS,  
RDCS

**Spleen**

The spleen exhibited 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.

**HOSPITAL NAME**

Healing Traditions  
Holistic VC

**REFERRING VET**

Dr. Emilia Balc

**Liver/ Gallbladder**

The liver revealed moderate to marked generalized enlargement, primarily owing to large, potentially coalescing liver mass to masses, occupying the majority of the hepatic parenchyma with caudal expansion subjectively past the level of the gastric axis.

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The gallbladder was normal in size without evidence of distention secondary to retained bile. Normal appearing anechoic bile was present. No overt evidence of post hepatic obstructive criteria.

**DATE**

11/2/22

**Gastrointestinal**

Possible secondary mild gastric displacement, although the stomach appeared to be sonographically normal without evidence of retained ingesta, fluid 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.

**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.

**Free Abdomen**

No overt lymphadenopathy or peritoneal effusion was present.

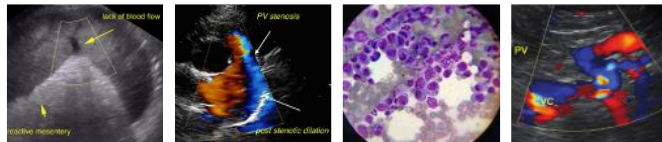
**ULTRASONOGRAPHIC FINDINGS**

- Large expansive, possibly coalescing liver mass/masses
- Sonographically unremarkable gallbladder
- Normal GI tract with suspect mild gastric displacement
- Age-related splenic changes- no evidence of splenic neoplastic criteria
- Mild chronic renal changes
- Sonographically unremarkable urinary bladder

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Although sampling is required for further assessment, the large liver mass to potential coalescing masses is consistent with neoplastic criteria, i.e., adenocarcinoma or other. Screening FNA cytology could be considered for further assessment, however, given the size and expansiveness of the mass, surgical options appear to be precluded for complete resection.

As needed gastrointestinal supportive care with potential smaller more frequent feedings and gastroprotectant protocol may prove beneficial. Aside from mild chronic renal changes, no overt evidence of urinary tract pathology.



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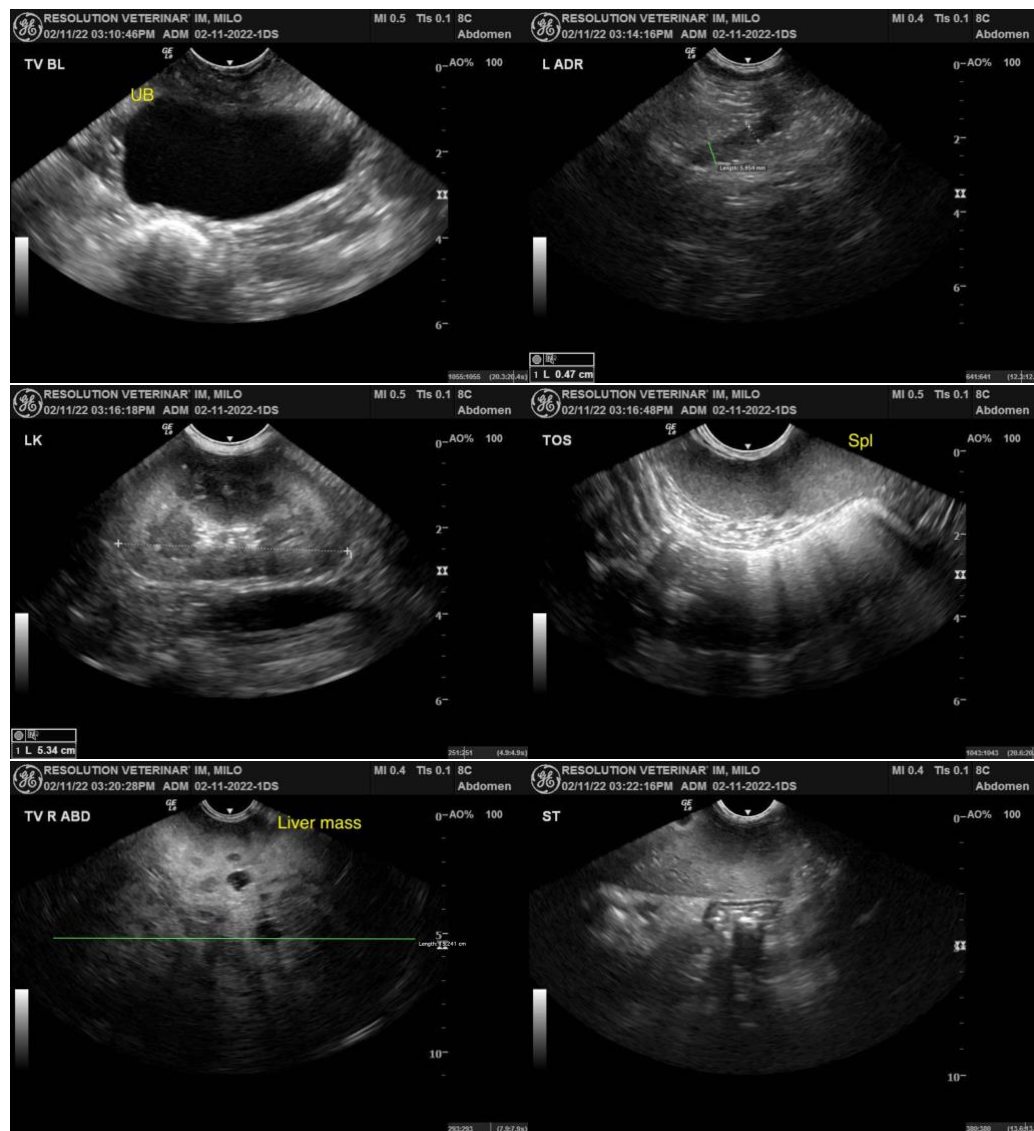
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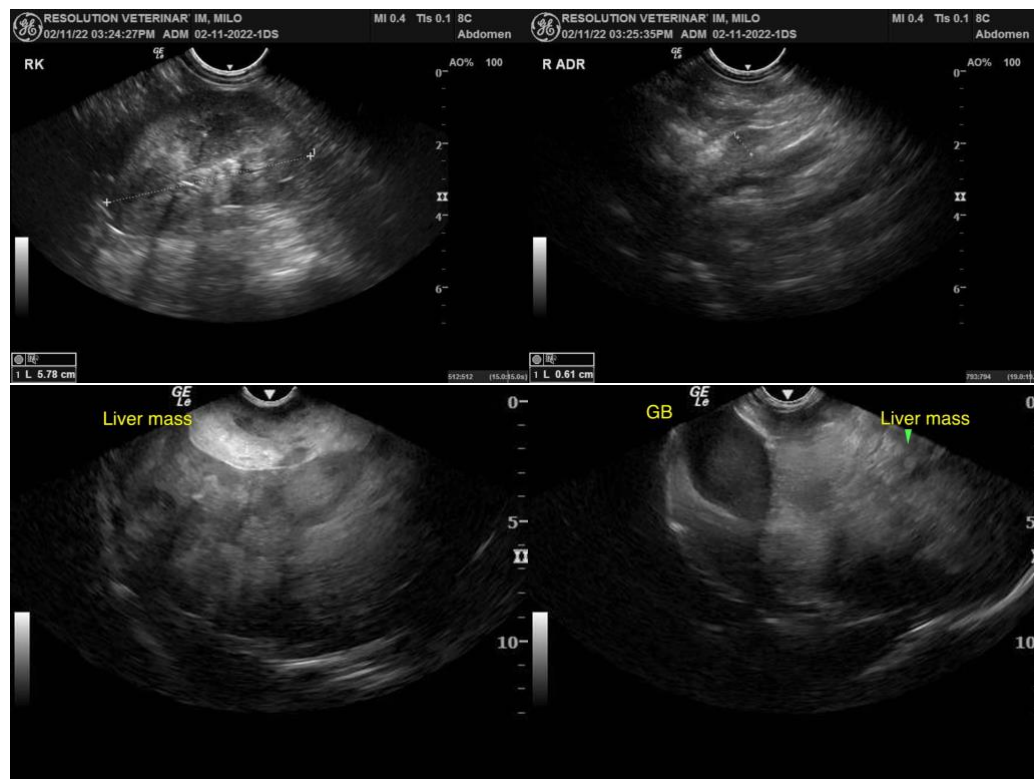
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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info@SonoPath.com