



PATIENT

Buddy Lemelin

PRESENTING CLINICAL SIGNS

Vomiting dehydrated and icteric

SPECIES

Canine

Abnormal PE/Chem/CBC/UA Results: Severe elevation of liver enzymes and stress leukon

BREED

Maltese

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

SEX

M/N

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra 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.

AGE

12

The residual prostate was free of pathology.

The area of the aortic trifurcation was free of pathology.

WEIGHT

4.7 kg

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 or pyelectasia was present. The left kidney measured 3.6 cm in length. The right kidney measured 3.8 cm in length. Discrete pinpoint medullary mineral was noted in both kidneys.

INTERPRETED BY

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

Adrenal Glands

The adrenal glands were overtly normal in size, position, and shape. The left adrenal gland measured 0.47 cm width. The right adrenal gland measured 0.39 cm width.

IMAGING PERFORMED BY

Dr. Belan

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

Alpine 24/7

REFERRING VET

Dr. Nelson

Liver/ Gallbladder

The liver was subjectively normal in size with symmetrical capsule contour and generalized heterogeneous mildly mixed echogenic hepatic parenchyma exhibiting moderate coarse echotexture. Evidence of parenchymal remodeling and intermittent nondisruptive nonhomogeneous to hyperechoic intraparenchymal, nondisruptive nodules were present. Normal hepatic vascular volume was noted. An example of a liver nodule measured 0.61 cm in diameter. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The proximal common bile duct was minorly dilated and tortuous without overt post hepatic obstruction.

INVOICE

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Gastrointestinal

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.

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 mechanical / metabolic ileus, obstruction, or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

Variably prominent to mixed echogenic left and right pancreas was present. Subtle evidence of peripancreatic mild hyperechoic omentum was noted.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

- Heterogeneous irregular to discretely nodular liver - suggestive of chronic hepatopathy criteria, inflammatory / immune-mediated disease, vacuolar hepatopathy, hyperplasia, hematopoiesis, fibrosis, nonobstructive cholestasis, infiltrative neoplasia (less likely) all potentials
- Nondistended gallbladder with minor nonobstructive proximal common bile duct dilation - may suggest age-related changes or secondary to underlying cholangitis / cholangiohepatitis especially if previous or current liver enzymes elevations have been noted. No overt signs of post hepatic obstruction.
- Mild bilateral chronic renal changes
- Variably prominent to mixed echogenic pancreas - possible benign parenchymal remodeling and fibrosis owing to previous inflammation, mixed pattern chronic to chronic active pancreatitis, less likely neoplasia, all potentials
- Overtly normal gastrointestinal tract, possible mild gastroenteritis

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Further assessment of the liver may include, assuming normal clotting status, screening hepatic FNA cytology to potentially identify inflammatory cell type if present, as well as assessment for possible acute on chronic criteria i.e., hepatotoxic insult or other.

Assessment for evidence of cranial abdominal / subxiphoid discomfort on palpation +/- Spec cPL may be considered given the potential for mixed pattern pancreatitis. No evidence of post hepatic obstructive criteria was noted.

Hospitalization with as-needed hepato-gastrointestinal support and potential empirical therapy for chronic to chronic active pancreatitis would be reasonable.



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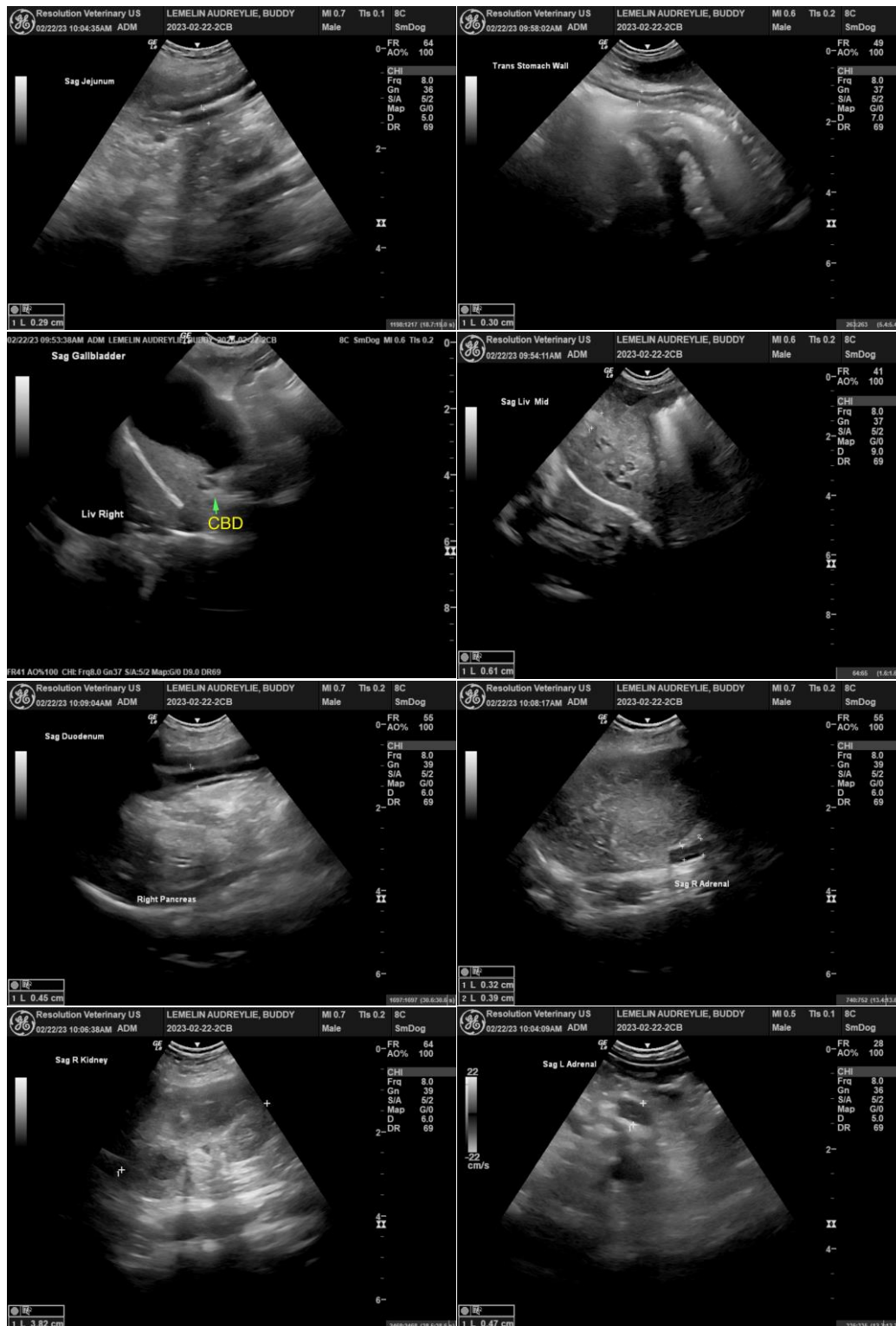
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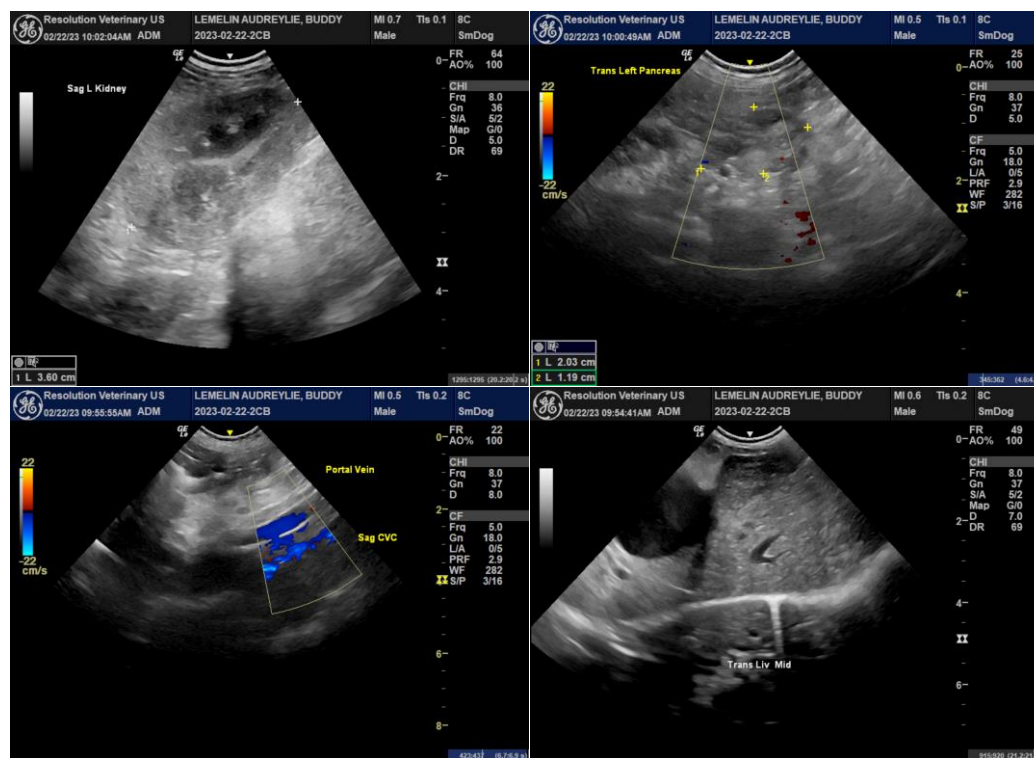
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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