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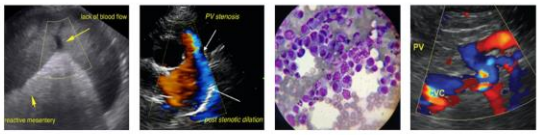

SonoPath
Clinical Sonography & Telecytology
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1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Leonardo Munoz

SPECIES

Canine

BREED

Lab Mix

SEX

MN

AGE

2012

WEIGHT

80.8

INTERPRETED BY

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

IMAGING PERFORMED BY

Rebekah Jakum, CVT ARDMS/RVT

HOSPITAL NAME

Lehigh Valley AH (Allen)

REFERRING VET

Dr. Hersh

INVOICE

17128

DATE

6/21/23

PRESENTING CLINICAL SIGNS

Elevated liver values for >1 year, hyperkeratosis, dermatitis, pruritis, pre anesthesia.

Medication: HepatoSupport, ursodial

ALT 241, AST 86, ALP 191, BUN 6

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 evidence of sediment, mineral, or calculi. 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 8.0 cm in length. The right kidney measured 8.4 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 2.2 cm length x 0.57 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 3.6 cm length x 0.57 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 yet maintained symmetrical capsule contour exhibiting normal hepatic parenchyma echogenicity compared to the spleen and falciform fat with mild coarse echotexture and evidence of minor parenchymal remodeling. Mildly increased yet indistinct portal vascular borders were noted. Subjective adequate hepatic vascular volume was present. No masses or nodules were noted. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

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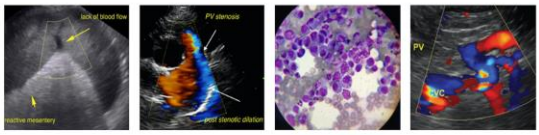

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Gastrointestinal

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 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

- Low-grade hepatopathy - subjectively benign
- Sonographically unremarkable gallbladder
- Normal bilateral kidneys and urinary bladder - no evidence of renal or cystic mineral / calculi

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall, the liver was nonspecific yet sonographically consistent with benign hepatopathy. Low-grade chronic nonspecific hepatitis, given the elevated ALT / AST combination, is suspected vs. other benign hepatopathy. No obvious evidence of a portosystemic vascular anomaly was noted. Hepatic sampling would be required for a definitive diagnosis.

Initial screening hepatic FNA cytology, assuming normal clotting status, could be considered primarily to assess for inflammatory criteria. However, a core surgical biopsy would be required for histopathology. Continued hepatosupportive medications including Denamarin and Ursodiol with monitoring of hepatic enzymes going forward would be reasonable. Bile acid testing +/- Leptospirosis titers may be considered if clinically indicated.

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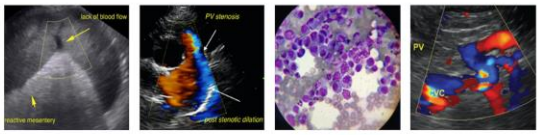

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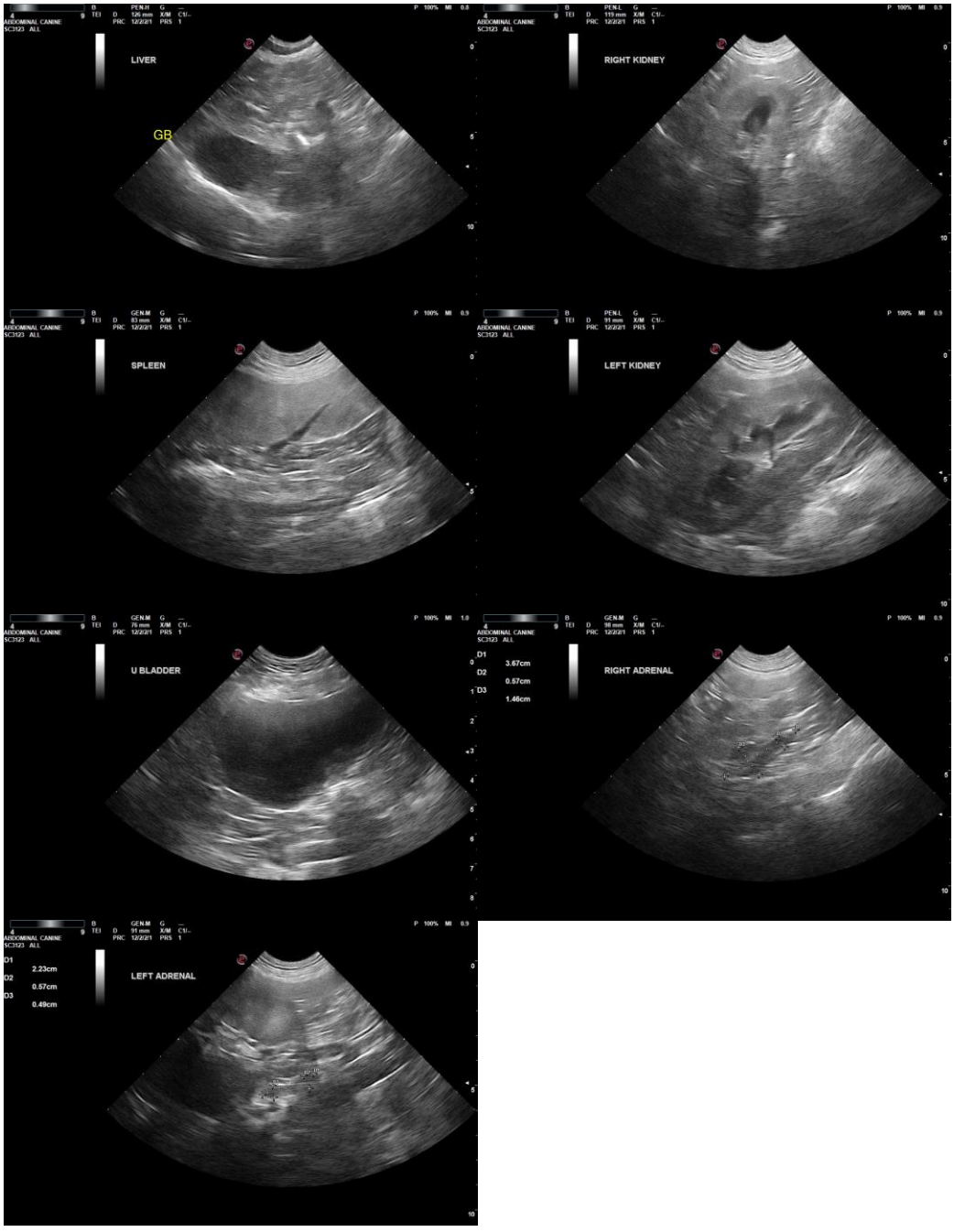

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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