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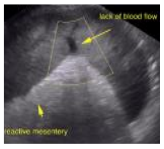
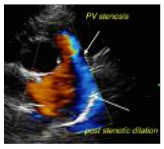
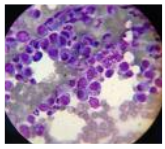
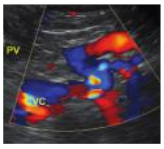

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1-800-838-4268 info@sonopath.com

PATIENT

Marley McAuley

SPECIES

Canine

BREED

Lab Retriever

SEX

Neutered Male

AGE

11 Years

WEIGHT

26.6 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Belan

HOSPITAL NAME

Britannia Kingsland VC

REFERRING VET

Dr. Rondat

INVOICE

17837

DATE

10/19/22

PRESENTING CLINICAL SIGNS

History: Lethargic and hypophagic. Severe elevation of liver enzymes. Suspect hepatic disease.
Abnormal PE/Chem/CBC/UA Results: Severe elevation of ALP ALT

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 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 were noted.

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 6.3 cm in length. The right kidney measured 6.3 cm in length. A solitary thinly walled cranial cyst was present, containing anechoic fluid, measuring 1.3 cm in diameter.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.59 cm width at the caudal pole and 0.83 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 0.51 cm width at the caudal pole and 0.60 cm width at the cranial pole.

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.

Liver

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non-distended. Mild generalized gallbladder wall edema was present wth the gallbladder measuring approximately 0.34 cm in width. Primarily anechoic content was present with mild hyperechoic inspissated yet nonorganized luminal debris. No overt evidence of peripheral gallbladder free fluid or overt inflammation. The common bile duct exhibited mild distention with mildly prominent to hyperechoic to thickened gallbladder walls to the level of the duodenal papilla. No overt evidence of obstructive duodenal papilla pathology.

Gastrointestinal

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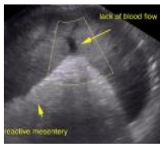
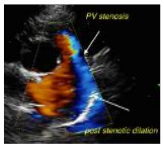
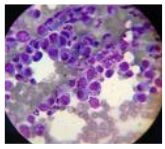
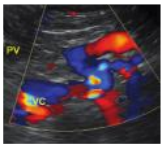

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The stomach presented mild to moderate wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. The gastric body wall measured 0.64 cm width. The stomach contained a mild amount of retained anechoic fluid.

The small intestine presented intact wall layering with maintained 1:3 muscularis/mucosa ratio. Mild upper to mid duodenal ileus pattern was noted without evidence of duodenal or generalized small intestinal obstructive criteria.

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

Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

Free Abdomen

No free fluid was present. Intermittent indistinctly visualized yet subjectively benign/reactive cranial mesenteric, likely pancreaticoduodenal lymph nodes. The lymph nodes were not consistent with inflammatory or neoplastic criteria.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Hepatopathy- subjectively acute on chronic
- Non-distended gallbladder, exhibiting mild wall edema and mild inspissated hyperechoic luminal debris
- Heterogeneous pancreas- age-related patient variant, benign remodeling, potential for low grade chronic to chronic active pancreatitis
- Gastroduodenitis

Secondary Findings

- Bilateral mild chronic renal changes with right kidney cyst

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Although nonspecific, primary suspicion for acute on chronic cholangitis/cholangiohepatitis given the hepatobiliary presentation (viral, bacterial, leptospirosis, toxin, etc.) with potential for concurrent or primary vacuolar hepatopathy, nonobstructive cholestasis, potential areas of discreet hyperplasia, hematopoiesis, fibrosis or other hepatopathy with occult infiltrative hepatic or hepatobiliary neoplasia considered a less likely differential diagnosis. Further assessment may include screening hepatic FNA cytology, assuming normal clotting status +/- leptospirosis titers/PCR if potential exposure. No overt evidence of posthepatic obstruction. Spec CPL is warranted to assess for evidence of concurrent pancreatitis.

Empirically, given the severe elevation of hepatic enzymes, hospitalization with hepatosupportive medications, broad spectrum antibiotics pending hepatic cytology, as needed gastrointestinal support +/- empirical therapy for low grade to chronic pancreatitis with monitoring of liver enzymes and assessment of clinical response would be reasonable.

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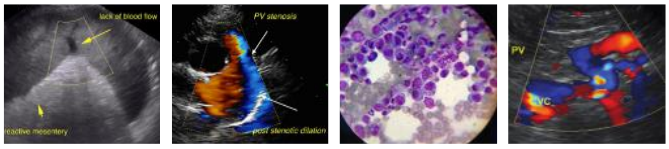

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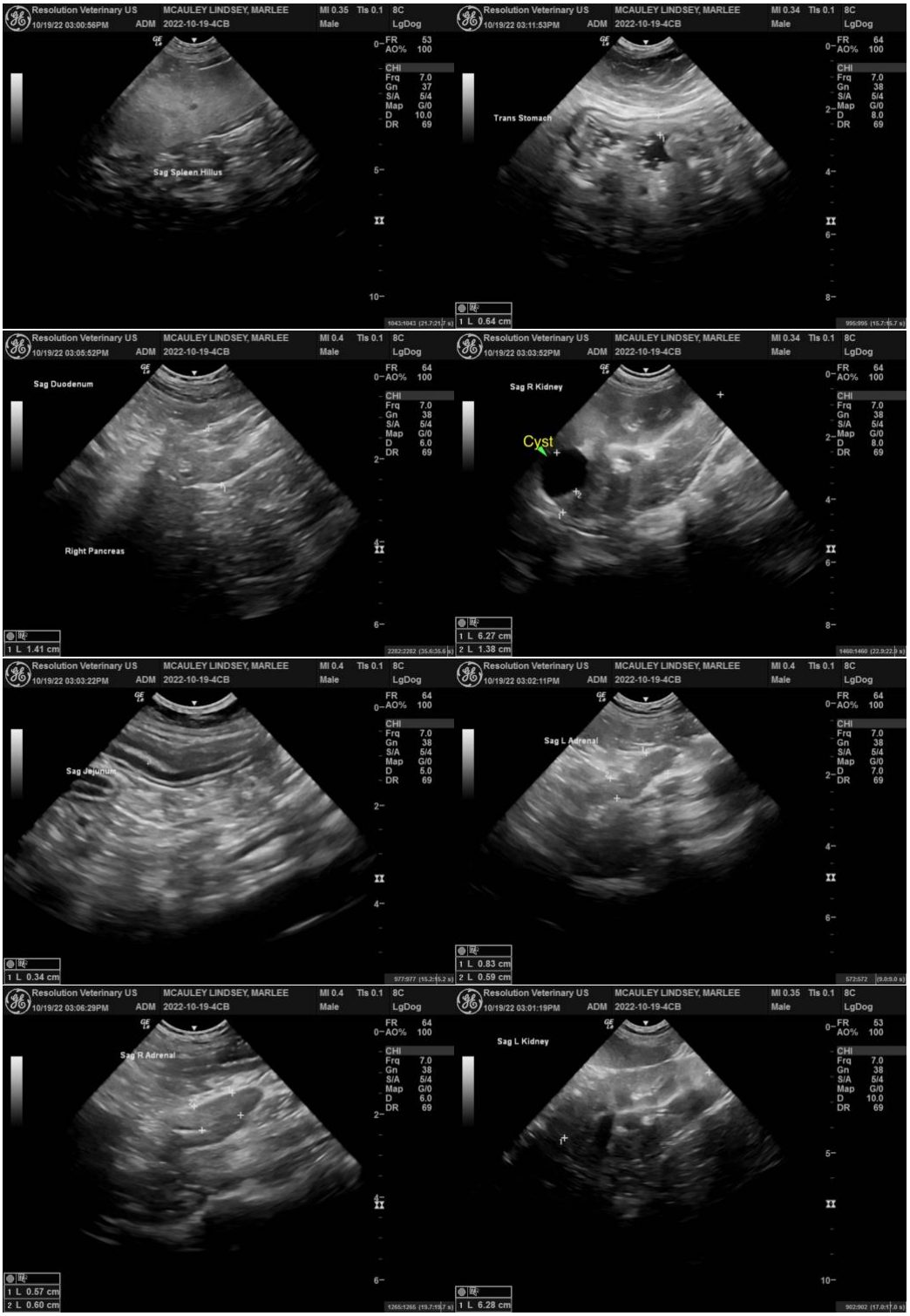

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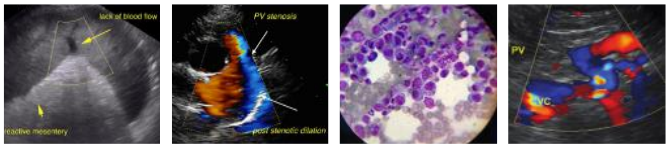

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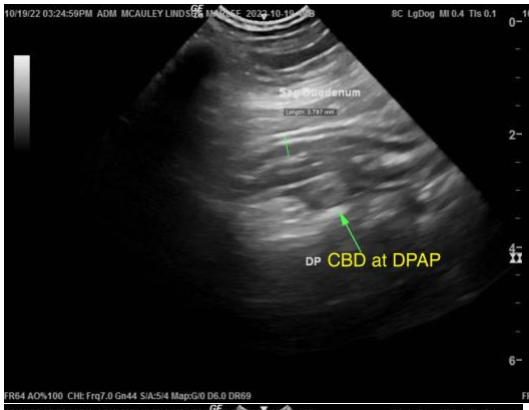

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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