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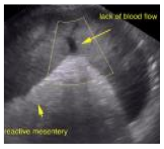
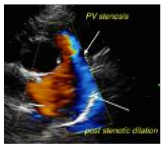
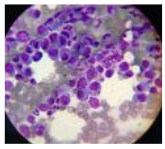
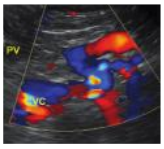





SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Maizy Hargreaves

SPECIES

Canine

BREED

Mixed

SEX

Spayed Female

AGE

11 Years

WEIGHT

13.4 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Donna Markland, DVM

HOSPITAL NAME

Island Mobile Paws VS

REFERRING VET

Mahalo VH

INVOICE

19050

DATE

12/6/22

PRESENTING CLINICAL SIGNS

History: Newly diagnosed IMHA. Previously diagnoses at referral centre with choloangiohepatitis in 2020 with successful treatment. Presented on 12/2 for reduced appetite and activity. PE on 12/2 was unremarkable other than icterus. FAST scan showed possible gallbladder mucocele. Started on following drugs for past 3 days: omeprazole, 1 mg/kg PO q 24 prednisone, 1mg/kg PO q 12 hr Baytril, 10 mg/kg PO 1 24 hr azathioprine, 2 mg/kg PO q 24 hr Mildly improved clinically since medications started.
Abnormal PE/Chem/CBC/UA Results: 12/2/22: HCT=27.3% (37-55) (PCV-22%) Neutrophils=13.65 (3-12) ALP=903 (20-150) TBili=2.7 (0.1-0.6) K+=3.6 (3.7-5.8) Urine: Bilirubin: +1 Microalbumin > 25mg/L

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

The area of the uterine remnant was free of pathology.

No evidence of medial iliac or sublumbar lymphadenopathy or masses.

Normal size and margination was 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 5.2 cm in length. The right kidney measured 5.4 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 1.7 cm length x 0.36 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 1.4 cm length x 0.43 width at the caudal pole.

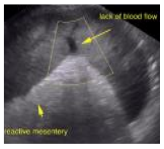
Spleen

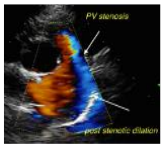
The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

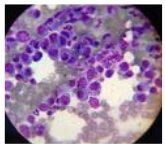
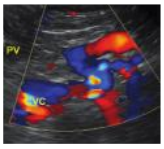
Liver

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non distended in size with echogenic, nonmineralized, nondependent biliary sludge. The biliary sludge was non organized with a hypoechoic to anechoic, irregular to interrupted rim visible





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between the nondependent sludge and inner wall. No signs of peripheral inflammation. The cystic and common bile duct were normal without evidence of pathology. No evidence of posthepatic obstruction.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The stomach exhibited mild to possible moderate gas distention.

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 pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia. This is consistent with age-related pancreatic changes and considered incidental. No evidence of active pancreatitis.

Free Abdomen

Intermittent, mildly prominent mesenteric and focal hepatic lymph nodes were present with subtle capsule asymmetry and nonhomogenous parenchyma. Maintained width: length ratio (<0.5). No evidence of perilymphatic inflammation. An example of lymph node size measured 2.6 cm x 0.9 cm. No omental masses or evidence of peritoneal free fluid noted.

ULTRASONOGRAPHIC FINDINGS

- Benign hepatopathy, exhibiting mild parenchymal remodeling
- Partial/immature gallbladder mucocele- subjectively non-inflamed
- Sonographically normal spleen
- Sonographically normal GI tract with subjective mild to moderate gastric gas
- Mild age-related kidneys
- Intermittent mildly prominent to nonhomogenous mesenteric lymph nodes- nonspecific yet subjectively benign/reactive

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall, no overt evidence of significant visceral pathology, specifically no evidence of intraabdominal neoplastic criteria as an obvious cause or contributing factor to the patients IMHA. The clinical significance of the partial to immature gallbladder mucocele is unclear, yet some degree of nonobstructive cholestasis as a contributing factor to the hepatic enzyme and total bilirubin elevation could be possible. Hepatosupportive medications including Denamarin and Ursodiol may prove beneficial.

Infectious disease serology +/- doxycycline trial in addition to current empirical therapy may be considered. Sonographic monitoring of the gallbladder is likely ideal and recommended if evidence of increasing cholestasis and as needed gastrointestinal support is recommended.

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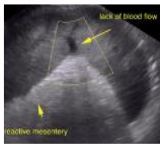
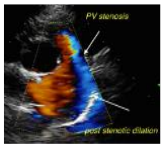
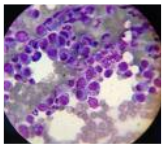
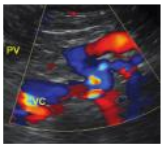

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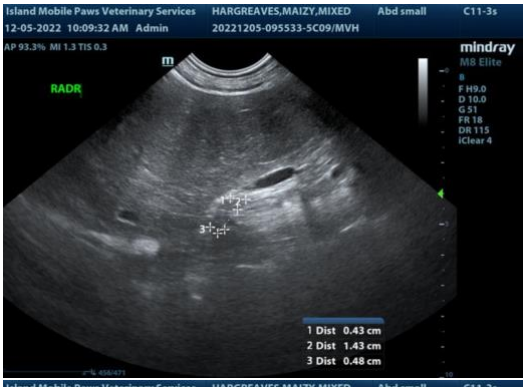

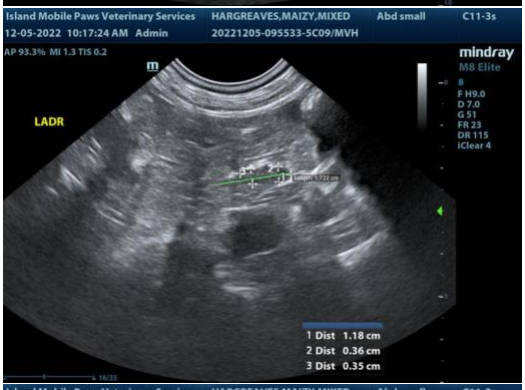

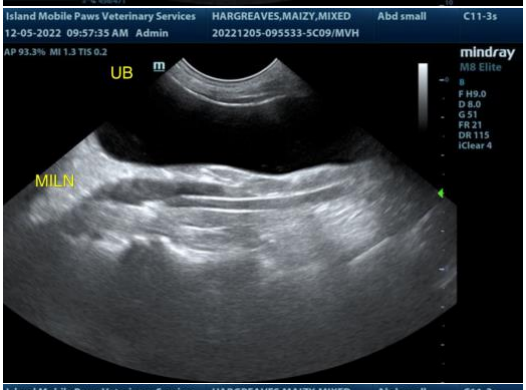

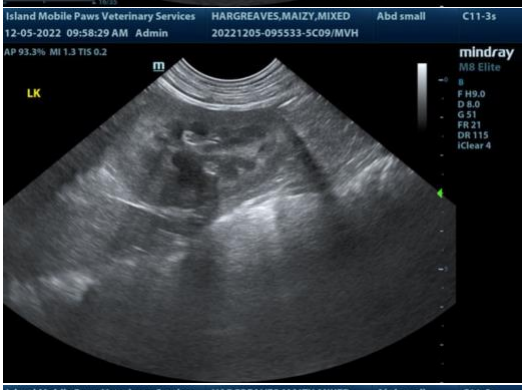

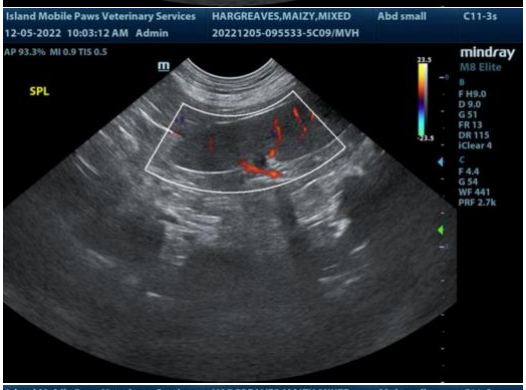

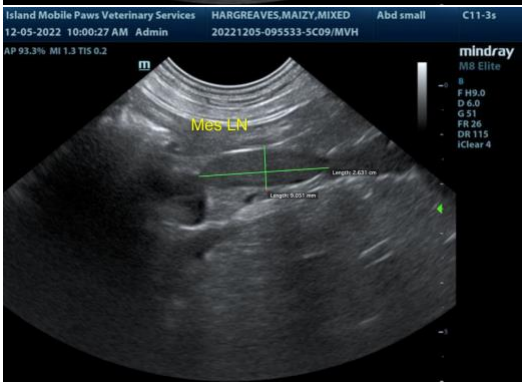

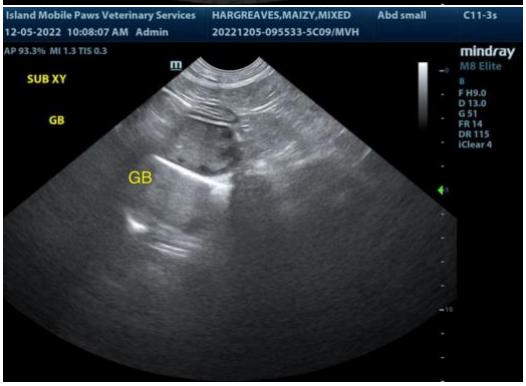

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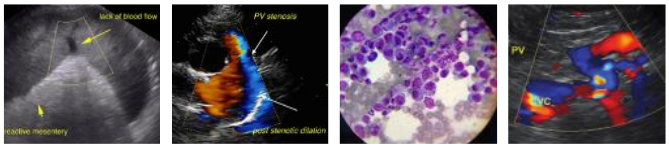

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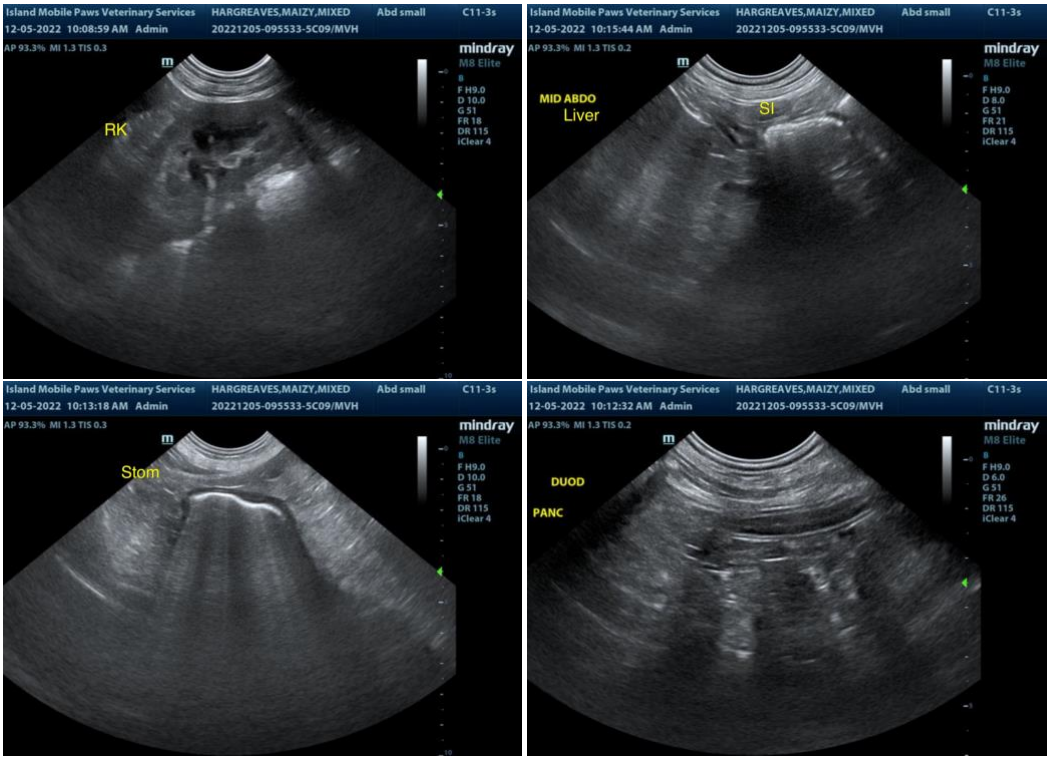

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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