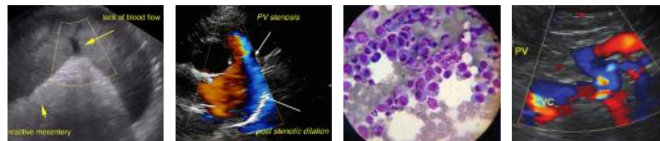
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Puma Mayer

SPECIES

Canine

BREED

Shiba X

SEX

Neutered Male

AGE

1 Year

WEIGHT

7 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Callihan – Animal Emergency Care

HOSPITAL NAME

Animal Emergency Care

REFERRING VET

Dr. Shields – Boundary Bay

INVOICE

37817

DATE

5/20/22

PRESENTING CLINICAL SIGNS

Presented to ER on 5/16 for <24h inappetence; was febrile 103.9, otherwise nsf on PE at that time; treated as outpatient with Cerenia, SC fluids -vomiting on Wed and Thur 5/18-19, black stools, back to ER on 5/19; admit temp 104.2; labs that day CBC with normal total WBC, neutrophilia; elev ALT 1894, ALP 1552 (tBili 1.0), else normal including SNAP cPL and NEG LEPTO. Has been hosp for past 24 hours with IV fluids, Cerenia, Metronidazole, Unasyn, Denamarin, Sucralfate (added pantoprazole tonight)
Abnormal PE/Chem/CBC/UA Results: Recheck labs tonight showed decrease in ALT in past 24 hrs, now 1334 (from 1894) BUT marked increase in ALKP, now 2981 (from 1552);

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.

The residual prostate 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 5.1 cm. The right kidney measured 5.8 cm.

The area of the aortic trifurcation was free of pathology.

Adrenal Glands

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.33 cm at the cranial pole and 0.41 cm at the caudal pole. The right adrenal gland measured 0.46 cm at the cranial pole and 0.36 cm at the caudal pole.

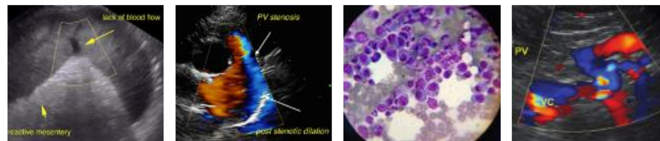
Spleen

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 normal in size and contour. Subjective mild decreased hepatic parenchyma echogenicity noted exhibiting mild to moderate coarse echotexture. The gallbladder was non-distended in size. The gallbladder wall was thickened in appearance consisting of an echogenic double rim corresponding to the inner and outer portions of the wall. This is consistent with gallbladder wall edema. Anechoic content present. The gallbladder wall measured 0.37 cm in width. Possible causes may include acute inflammation, hypoalbuminemia, right sided heart failure and anaphylaxis.

Gastrointestinal



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The stomach presented wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. Minor retained anechoic fluid and luminal gas.

The small intestine exhibited segmental to generalized subjective decreased mucosal echogenicity. Segmental duodenojejunal ileus present with areas of minor retained non-shadowing chyme.

Normal visible colon wall layers were present with subjective semiformed to soft 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 was evident.

Free Abdomen

Focal to intermittent, mildly prominent to enlarged mesenteric node was present. The lymph node was essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5).

Very scant pockets of peri intestinal to peritoneal free fluid present.

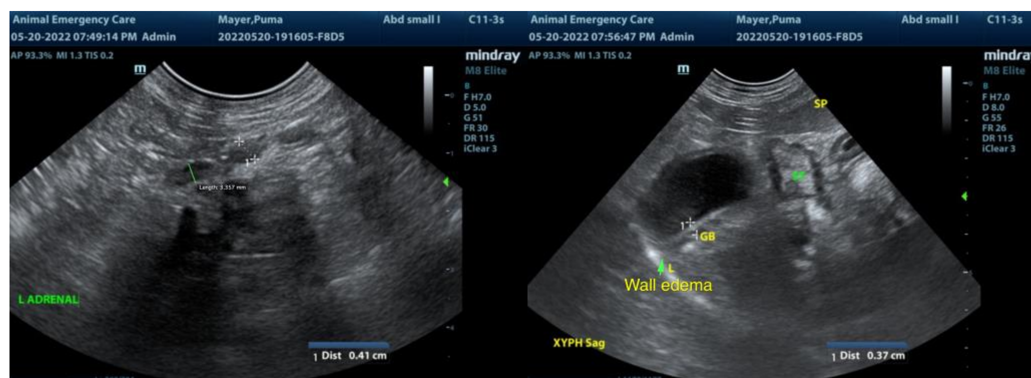
ULTRASONOGRAPHIC FINDINGS

- Hepatopathy
- Mild gallbladder wall edema
- Acute gastroenteritis
- Focal to intermittent benign/reactive mesenteric lymph nodes
- Small pockets of very scant peri intestinal/peritoneal free fluid

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The most likely etiology for the hepatopathy and gallbladder wall edema, potentially in conjunction with fever, would be acute hepatitis (viral, bacterial, Leptospirosis, toxin, etc.). Concurrent acute gastrointestinal insult, enterotoxemia, infectious gastroenteritis possible. Less likely differential diagnosis for the gallbladder wall edema may include anaphylaxis. No evidence of post-hepatic obstructive pattern or mechanical gastrointestinal obstructive pattern.

Further assessment of the liver may include ultrasound guided FNA, assuming normal clotting status and using 25-gauge needle for screening cytology. Continued empirical therapy for acute hepatitis/gastroenteritis with continued monitoring and assessment of clinical response would be reasonable .



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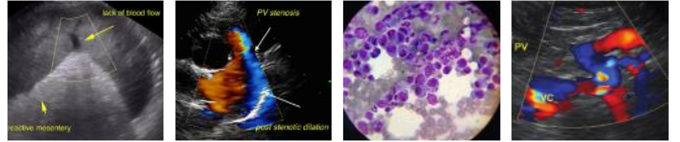

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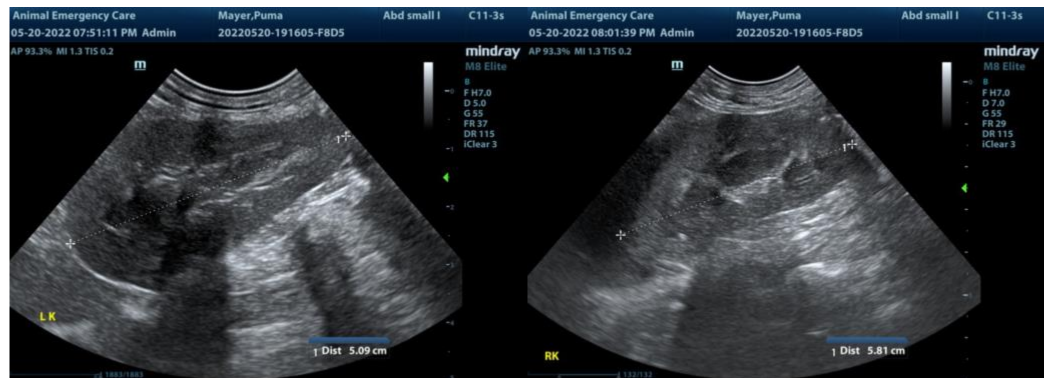

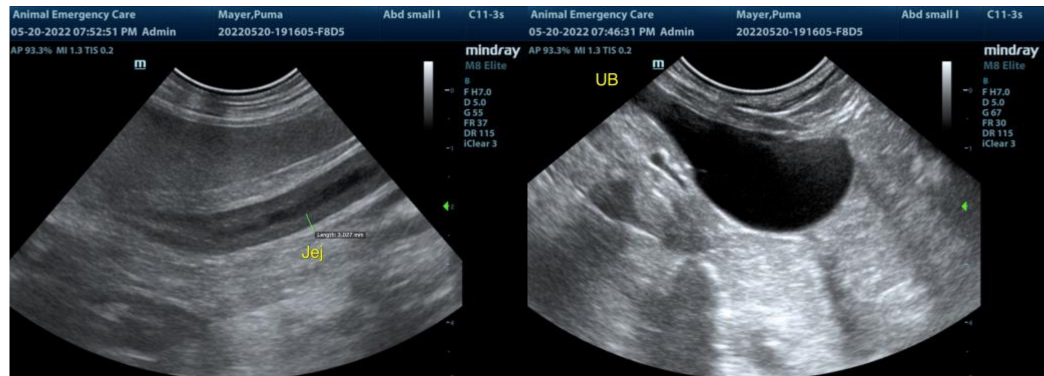

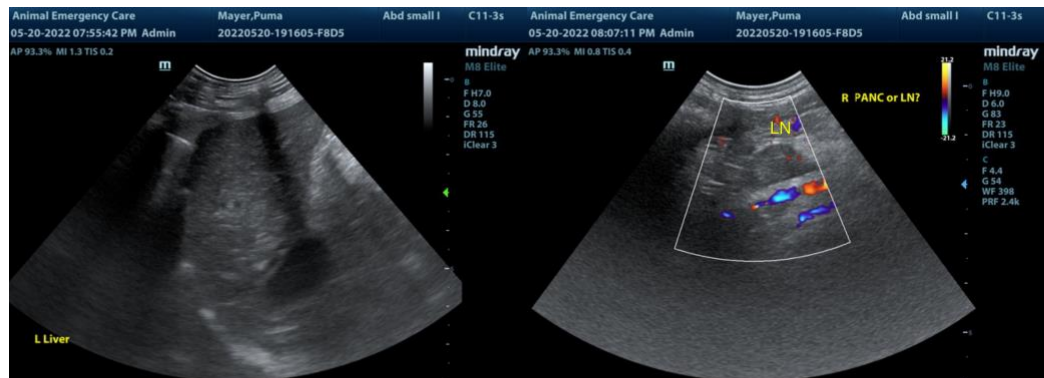

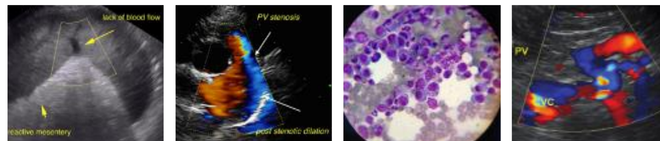

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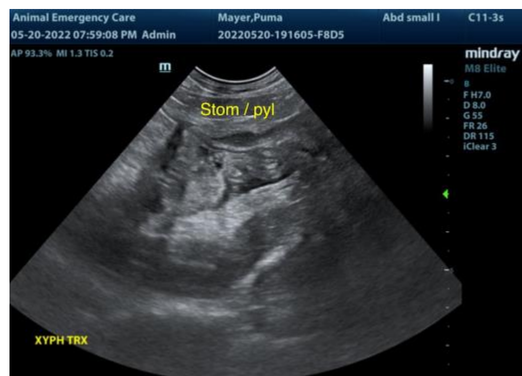

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

info@SonoPath.com