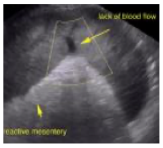
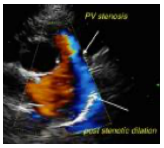
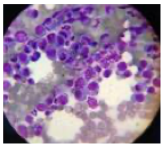
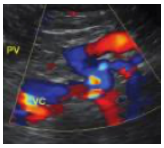
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Queen Sierra

SPECIES
Canine

BREED
Chihuahua

SEX
Female Spayed

AGE
7 years

WEIGHT
5.4 kg

INTERPRETED BY
Andrea Nicastro, DVM, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY
Dr Reyes

HOSPITAL NAME
Mobile Vet Ultrasound

REFERRING VET
Dr Beltran

INVOICE
12694

DATE
4.6.23

PRESENTING CLINICAL SIGNS

History: Pet received a Rabies vaccine in Argentina, 5 months later she developed lethargy and was diagnosed with IMHA. Pet is currently stable and receiving 5 mg Prednisone EOD. Owner is concerned about enlarged abdomen and requested an ultrasound.

Abnormal PE/Chem/CBC/UA Results: CBC (3/10/23) RBC: 2.57 HCT: 25.9, 15.8 (3/2/23), 19.5 (2/24/23) Neut: 13.53 Reticulocyte: 278 Chem: ALT: 657, 782 (3/2/23) ALKP: 717, 376 (3/2/23) K: 6.9+

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder and visible portion of the pelvic urethra are normal for the degree of luminal distension. The urine is anechoic with no evidence of debris. Cystic calculi and discrete masses are not observed. The region of the trigone is normal.

The left kidney is subjectively normal in size with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The right kidney is normal in size (3.57 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is normal in size (0.35 cm at cranial pole) (0.43 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature appear normal.

The right adrenal gland is in normal size (0.45 cm at cranial pole) (0.43 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature appear normal.

Spleen

The spleen is normal in size (0.71 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature appears normal.

Liver

The liver is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion.

The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is mildly distended with ingesta. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is segmentally dilated with

chyme. The small intestinal wall is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

Pancreas

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Findings

- The hepatic parenchymal changes, in conjunction with the liver enzyme pattern could be consistent with inflammatory disease (i.e., bacterial cholangiohepatitis, chronic hepatitis), vacuolar hepatopathy (i.e., corticosteroid-induced), hepatotoxicosis (i.e., copper), Leptospirosis, other hepatopathy or some combination thereof.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

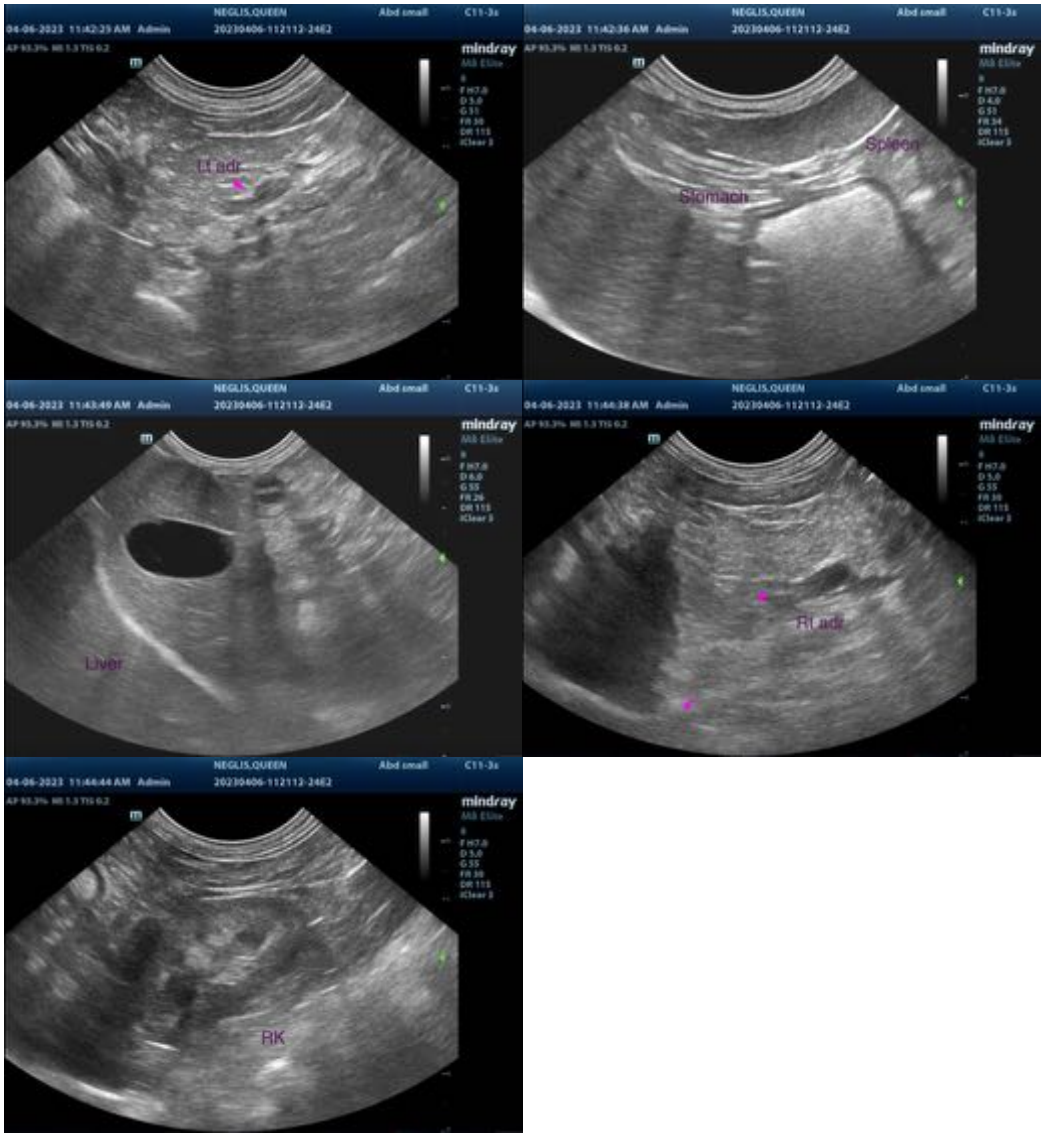
- Regarding the liver enzyme elevations, consider fine-needle aspiration or biopsy (i.e., laparoscopic, or surgical) if clotting status is appropriate. If biopsies are pursued, aerobic and anaerobic bile cultures are recommended along with hepatic copper quantitation. Also consider Leptospirosis testing (i.e., blood and urine PCR, serology), particularly if clinical suspicion for the disease is high.

- If a more conservative approach is desired, consider empirical treatment for cholangiohepatitis with amoxicillin-clavulanic acid along with hepatic antioxidants. If liver values do not begin to improve within 7-10 days of initiating therapy, antibiotics should be discontinued, and hepatic tissue sampling reconsidered. If values do improve, a 4–6-week course of treatment is recommended.

- Regarding the anemia, additional immunosuppression may be warranted.

- Also consider three-view thoracic radiographs to assess for occult neoplasia (if not already performed).

- A comprehensive tick panel, including PCR and serology (submission to North Carolina State University's Vector Borne Disease Diagnostic Lab is recommended. https://cvm.ncsu.edu/research/labs/clinical-sciences/vector-borne-disease)



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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com