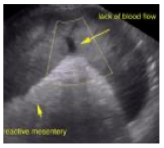
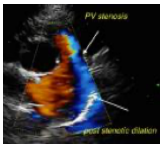
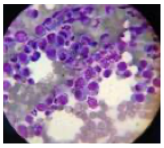
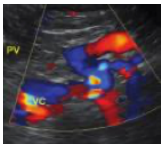
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Blarney Foley

SPECIES
Canine

BREED
Shepherd Mix

SEX
Neutered Male

AGE
12 years, 6 mos

WEIGHT
62. 8 lbs

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

IMAGING PERFORMED BY
M. Kermendy, CVT

HOSPITAL NAME
Wauwatosa Vet

REFERRING VET
Ericka Haynes DVM

INVOICE
11384

DATE
8.10.22

PRESENTING CLINICAL SIGNS

History: 2 plus month history of increasingly elevated ALT and ALP despite Denamarin treatment. Spec cPL also elevated but improving. Screening for hepatic and pancreatic disease.

Abnormal PE/Chem/CBC/UA Results: ALT= 342 (10-125); 153 in June ALP=862 (23-212); 369 in June Spec cPL=492 (0-200); 618 in June

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 and the visualized portion of the proximal urethra are normal.

The **prostate** is not definitively visualized due to its pelvic location.

The **left kidney** is normal size (6.37 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The **right kidney** is normal size (6.74 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

Adrenal Glands

The **left adrenal gland** is normal size (0.54 cm at cranial pole) (0.64 cm at caudal pole); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The region of the **right adrenal gland** is evaluated. No obvious pathology is observed.

Spleen

The **spleen** is normal in size (2.71 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 is normal.

Liver

The **liver** is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and subtly mottled in appearance. No distinct focal lesions are observed. Hepatic vasculature and intrahepatic 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 moderate amount of aggregated, 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 not dilated. The small intestinal wall thickness is normal 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

Primary Findings

- Diffuse hepatopathy. Differentials include inflammatory hepatopathy (i.e., chronic active hepatitis, bacterial cholangiohepatitis), hepatotoxicosis (i.e., copper), Leptospirosis (less likely given the chronicity of the liver enzyme elevations), fibrosis, infiltrative neoplasia (less likely), other hepatopathies.

Secondary Findings

- Minor, age-related degenerative renal changes

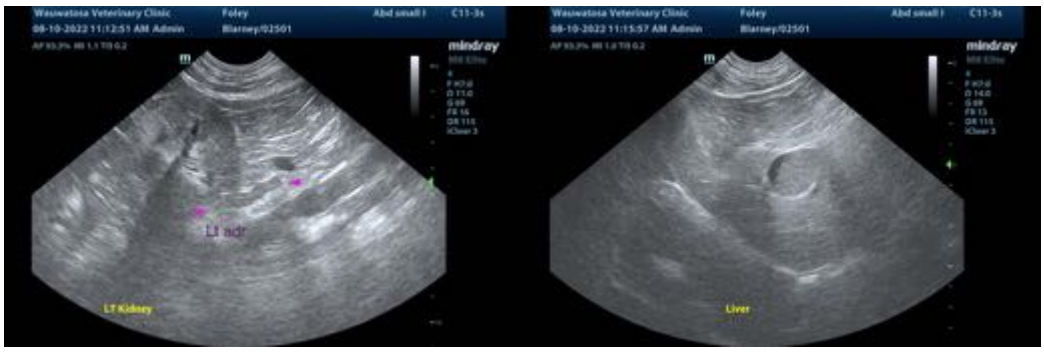
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

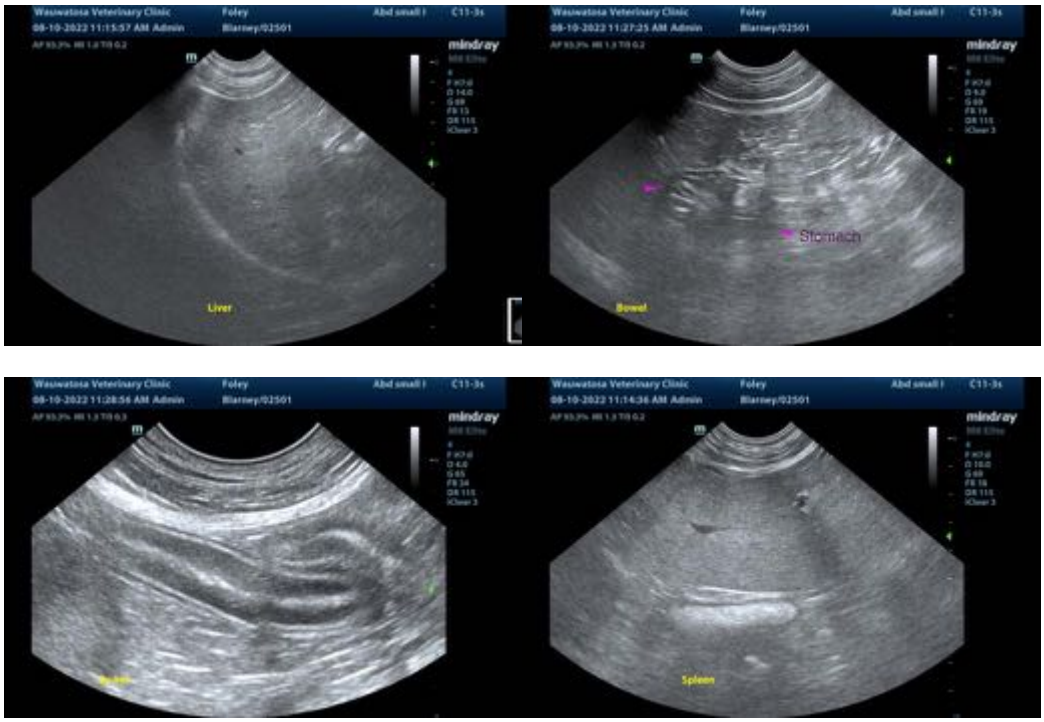
- Consider pre-and postprandial serum bile acids to assess hepatic function.

- Hepatic tissue sampling (a fine-needle aspirate or biopsy) will likely be necessary to get a definitive diagnosis.Hepatic cytology is useful in diagnosing round cell neoplasia and vacuolar hepatopathy, but less beneficial in assessing for other hepatopathies. Surgical biopsies are more likely to yield a definitive diagnosis. If pursued, aerobic and anaerobic bile cultures as well as acquisition of additional hepatic tissue samples for potential copper quantitation are recommended. Prior to any anesthesia, three-view thoracic radiographs and clotting times (i.e., PT/PTT) should be performed.

- If a conservative approach is desired, consider empirical treatment for bacterial cholangiohepatitis (amoxicillin-clavulanic acid, +/-metronidazole, Denamarin). If no improvement in the liver values is seen within 7-10 days of initiating therapy, antibiotics should be discontinued, and hepatic tissue sampling reconsidered. If liver values improve, continue therapy for at least 4-6 weeks and 1 week beyond normalization of the liver values.

- Leptospirosis testing (i.e., blood and urine PCR, serology) can be considered. However, testing for this infection may be of low yield given the chronicity of the liver enzyme elevations.





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