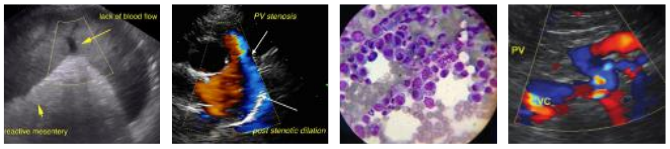
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Blue Harper

SPECIES
Canine

BREED
Pitbull Mix

SEX
Neutered Male

AGE
10 years

WEIGHT
105.6 lbs

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

IMAGING PERFORMED BY
Dr. Goodman

HOSPITAL NAME
Evandale-Blue Ash PH

REFERRING VET
Dr. Goodman

INVOICE
140691

DATE
4/5/22

PRESENTING CLINICAL SIGNS

History: Prev hx of hypercalcemia and hyperparathyroidism in Feb 2021 - pursued surgery and recovered well. Presented on 2/23/22 for annual exam with CBC/Chem/UA/T4 to the lab. BW showed ALT and ALP elevations. Did a two-week course of amoxicillin (250mg and 500mg, 1 tab each BID) and recheck values at the end of course on 3/16/22. ALT and ALP continued to creep up. Owner opted to do just the antibiotics first prior to starting Denamarin and then wanted to pursue the ultrasound next. Doing well at home otherwise, e/d and acting himself. Currently on amantadine and gabapentin for pain management.

Abnormal PE/Chem/CBC/UA Results: 2/2/2021: ALT - 95 ALP - 149 2/23/22: ALT - 133 ALP - 285 3/16/22: ALT - 153 ALP – 327

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended. The wall is normal in thickness with a smooth mucosal surface. A 2.67 cm cystic calculus is observed within the lumen along with a scant amount of suspended echogenic debris. The region of the trigone and the visualized portion of the proximal urethra are normal.

The prostate is normal in size (1.01 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal size (7.78 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter

The right kidney presented normal size (6.49 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is normal size (0.66 cm at cranial pole) (0.76 cm at caudal pole) (2.61 cm in length); 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.

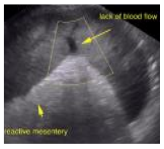
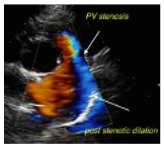
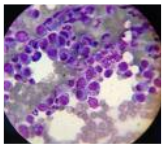
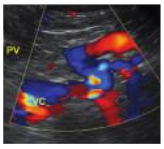
The right adrenal gland is normal size (0.85 cm at cranial pole) (0.55 cm at caudal pole) (3.23 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (2.06 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 to slightly prominent in size with normal curvilinear peripheral contours. The parenchyma is subtly mottled in appearance. No distinct focal lesions are observed.

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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 scant amount of suspended echogenic debris is observed within the lumen. The cystic and common bile ducts are normal.

Gastrointestinal

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. 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. No obstructive or overt infiltrative disease is noted.

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.

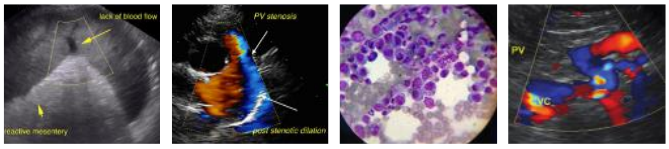
ULTRASONOGRAPHIC FINDINGS

Primary Findings

- An obvious cause for the elevated liver enzymes is not identified in the study. However, a microscopic hepatopathy (i.e., bacterial cholangiohepatitis, Leptospirosis, chronic active hepatitis, copper-associated hepatotoxicity, infiltrative neoplasia (less likely)) cannot be excluded.
- Cystic calculus

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Consider pre-and postprandial serum bile acids to assess hepatic function.
- Leptospirosis testing can be considered. However, given the chronicity of the liver enzyme elevations, this differential is considered less likely.
- Ultimately hepatic tissue sampling (i.e., fine-needle aspirate or surgical biopsy) will likely be necessary to get a definitive diagnosis. Surgical biopsies are preferred in that they are more likely to provide a definitive diagnosis. If surgery is pursued, acquisition of additional hepatic tissue samples for potential copper quantitation as well as aerobic and anaerobic bile cultures are recommended. A cystotomy with bladder stone removal, stone analysis and culture can also be performed at the time of surgery.
- If surgery is not pursued at this time, consider an attempt at medical dissolution of the cystic calculus with a prescription urinary diet and broad-spectrum antibiotic. If no improvement in



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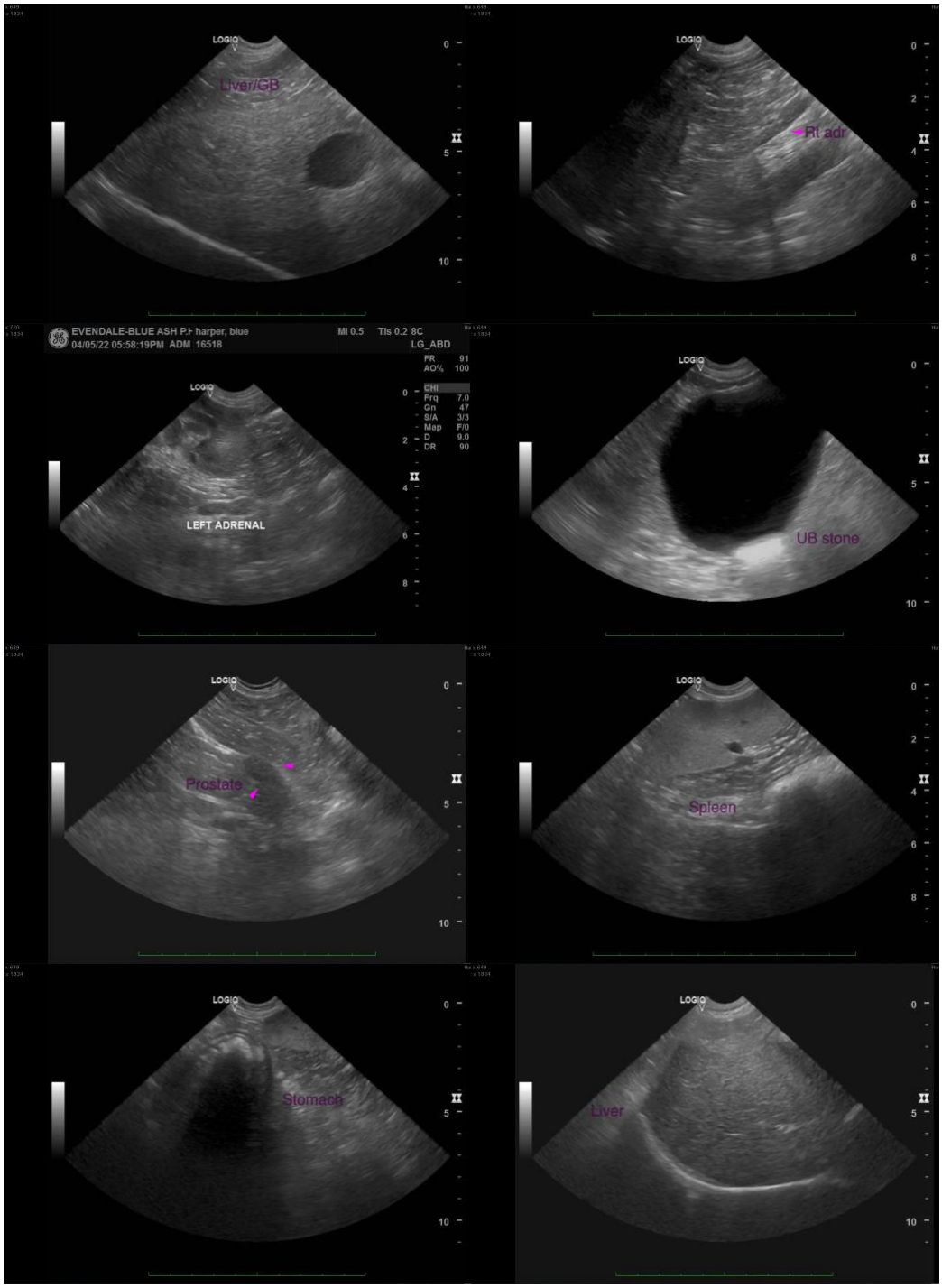
the stone size is seen within four weeks of initiating therapy, a cystotomy should be revisited. If stone size decreases, continue medical management until complete dissolution of the stone.

- If the patient is to undergo anesthesia at any point, thoracic radiographs (three-view) are recommended to assess cardiopulmonary status.



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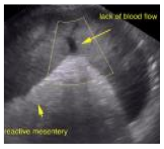
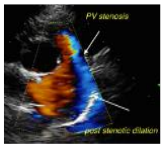
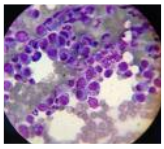
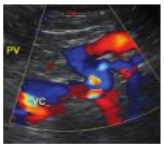

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
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