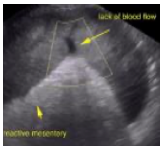
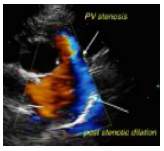
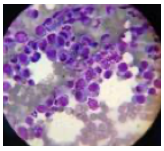
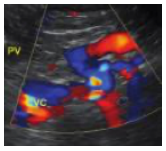
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Macy Kaplan

SPECIES
Canine

BREED
Terrier Mix

SEX
Female, spayed

AGE
11 Yrs.

WEIGHT
17.4 lbs.

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

IMAGING PERFORMED BY
Dr. Jo Goodman

HOSPITAL NAME
Evendale Blue-Ash Pet Hospital

REFERRING VET
Dr. Jo Goodman

INVOICE
12869

DATE
1/18/22

PRESENTING CLINICAL SIGNS

History: Presented 10/12/21 for annual wellness with CBC/Chem/UA/T4/4DX/Fecal. BW showed mild ALT elevation. Rechecked on 11/10/21 and ALT was further elevated. Started on denamarin and amoxi tri clav 125mg (1 tab BID x14d). Rechecked on 11/29/21 and ALT had decreased slightly but still elevated out of the normal range. Rechecked on 1/5/22 and ALT crept back up. Owner has not noted any increased thirst, urination or hunger. Patient tolerates taking the denamarin and is doing well at home otherwise. Patient is still on Denamarin.
Abnormal PE/Chem/CBC/UA Results: 10/12/21: ALT - 123 11/10/21: ALT - 162 11/29/21: ALT - 129 1/5/22: ALT - 145

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The left kidney is normal size (3.86 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild corticomedullary distinction. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter.

The right kidney is normal size (3.99 cm in length); normal shape and architecture with 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.

Adrenal Glands

The left adrenal gland is upper limits of normal size (0.48 cm at cranial pole) (0.56 cm at caudal pole) (1.91 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 (0.46 cm at cranial pole) (0.38 cm at caudal pole) (1.74 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 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 prominent in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and exhibits a finely heterogeneous appearance and a coarse echotexture. 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 to moderate amount of aggregated echogenic debris/sludge is observed within the lumen, some of which is gravity-dependent and some of which is suspended. The cystic and common bile ducts are normal/not seen.

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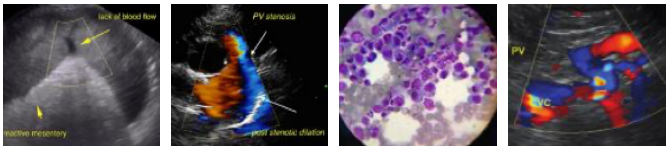

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Gastrointestinal

In the available images, the gastric lumen is not distended. The gastric wall is normal in thickness with a normal layering pattern and appropriate mural detail. In the visible portion of the small intestine, there is no evidence of dilation. The wall is normal in thickness with a normal layering pattern. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

Pancreas

The base and limbs of the pancreas are visible with normal curvilinear peripheral contours. The parenchyma is slightly hypoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic 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, reactive hepatopathy, copper-associated hepatotoxicity, infiltrative neoplasia (less likely)) should be considered.
- Gallbladder debris/sludge, non-mucocele.

Secondary Findings:

- Minor geriatric age-related renal and pancreatic changes.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- If a conservative approach is desired, consider continued serial monitoring (i.e., every 2-3 months) of the patient's liver values. If the ALT continues to increase, repeat abdominal ultrasound +/- hepatic tissue sampling can be considered. Another option is to consider an antibiotic with a broader spectrum (i.e., a fluoroquinolone). If no improvement in the ALT is seen within 7-10 days of initiating therapy, antibiotics should be discontinued.
- If a more aggressive approach is desired, consider hepatic fine needle aspirate or surgical biopsy. If surgical biopsies are pursued, aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for copper quantitation are also recommended.
- Leptospirosis testing (i.e., blood and urine PCR, serology) can also be considered. However, given the chronicity of the ALT elevation, this differential is considered less likely.
- If the patient is to undergo anesthesia for any reason, thoracic radiographs should be obtained to assess cardiopulmonary status.

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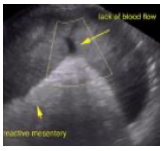
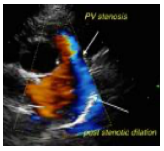
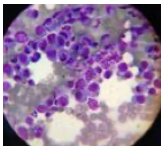
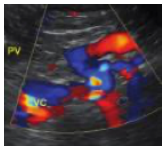

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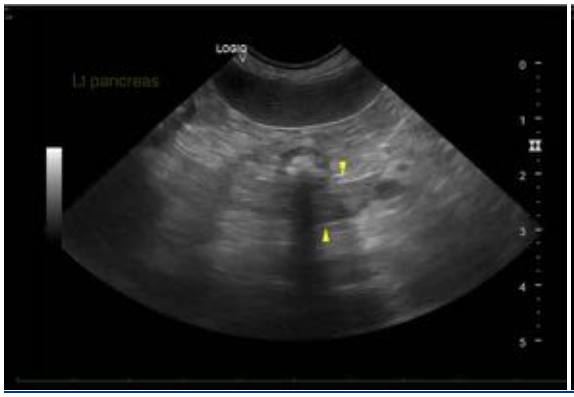
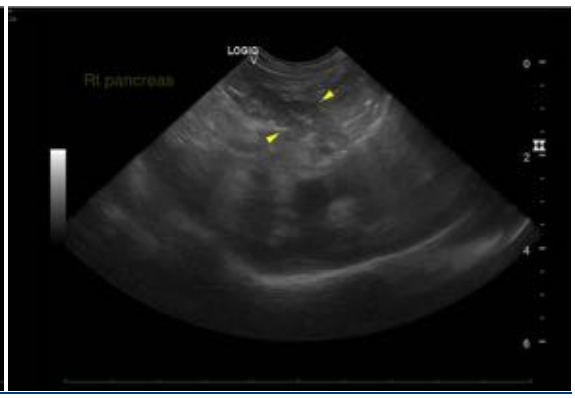
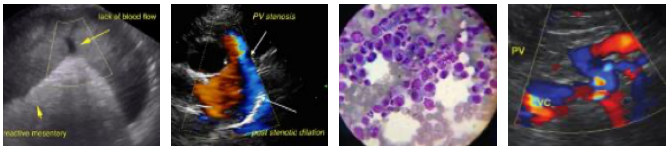




The information and recommendations provided are based on the images presented by the referring



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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.

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

Andrea.nicastro@sonopath.com