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Clinical Sonography & Telecytology
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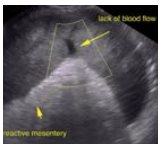
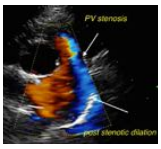
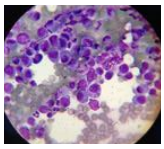
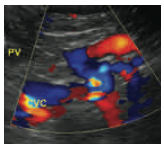





SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Angelica Avery

SPECIES
Canine

BREED
Chihuahua

SEX
Spayed Female

AGE
10 years

WEIGHT
7.56 lbs

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
Dr. Rupley

HOSPITAL NAME
All Pets Medical Center

REFERRING VET
Dr. Rupley

INVOICE
95912

DATE
2/8/22

PRESENTING CLINICAL SIGNS

Annual visit 2 weeks ago, the alk pos was elevated (first identified 11/22/19 at 183), and the ALT was elevated (new). UTI identified and treated based on culture sensitivity. PRESENTED FOR: Abdominal ultrasound for elevated bile acids, alk phos, and ALT. REPORTED SYMPTOM: None. VITALS: 7.56 # Temperature: 102.5 Heart Rate:160 bpm Respiratory Rate: 36 bpm Mucous Membrane Color: pink Capillary Refill Time: <2 CURRENT MEDICATIONS: Thyroxine 0.1mg: 1/2 tablet every 12 hours; Has Alprazolam and Zylken for storms and stressful events ----FINISHED MEDS: AmoxiClav for UTI - finished last week EXAM FINDINGS: B/S 6 Dental disease LAB RESULTS: 2/8/22: Urinalysis results rare red blood cells, rare amophous crystals, with pH of 7.0 and specific gravity of 1.030. 1/19/2022: Fecal float nps. Heartworm test nad. Chemistry panel: elevated alk phos 214 (increased from last visit, and was new at that time) (first identified 11/22/19 at 183), and the ALT was elevated at 170 (new), BUN at the high end of normal, elevated glucose at 138. Urinalysis results reveal glucose 100, abundant red blood cells, low numbers of white blood cells, abundant rod bacteria, with a pH of 7.0 and Specific Gravity: 1.024. CBC: elevated PCV with a leukopenia resulting from a lymphopenia. Fasting bile acids elevated at 19.1 (0.0-6.0); 2 hour post prandial elevated at 33.7 (0.0-13.5).

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is moderately distended with anechoic contents. It has normal uniform wall thickness (< 0.2 cm). No masses or cystoliths are observed.

Left kidney is normal in size (3.6 cm), shape and echogenicity. It has smooth peripheral margination and appropriate corticomedullary distinction. There is no pyelectasia noted. No mineral is observed.

Right kidney is normal in size (3.9 cm), shape and echogenicity. It has smooth peripheral margination and appropriate corticomedullary distinction. There is no pyelectasia noted. No mineral is observed.

Adrenal Glands

Left adrenal gland is normal in size (0.32 cm at cranial pole and 0.34 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable.

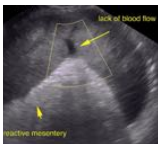
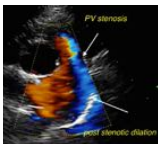
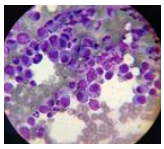
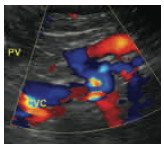
Right adrenal gland is normal in size (0.65 cm at cranial pole and 0.49 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable.

Spleen

Spleen is subjectively normal in size with normal smooth margins. Parenchyma is normal in echogenicity and echotexture. There are multifocal well-demarcated hyperechoic homogenous nodules. Splenic vasculature appears normal.

Liver

Liver is subjectively normal in size. Margins are sharp and smooth. It has normal homogenous echotexture and normal echogenicity. No focal lesions are observed. Visible vasculature appears

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normal. Gallbladder is mildly distended with anechoic contents. The wall is smooth without visible thickening. There is no evidence of common bile duct dilation.

Gastrointestinal

The visible gastric wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm). The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). There are no luminal contents noted within small intestines.

Colon is normal in wall thickness (< 0.2 cm) and layering.

Pancreas

Pancreas has normal homogenous echotexture and is normal in echogenicity and smooth margination. There is no evidence of peripancreatic inflammation.

Free Abdomen

Lymph nodes are normal with no observed enlargement.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

Hyperechoic splenic nodules – most consistent with benign myelolipomas. Other differentials such as fibrosis or calcification caused by old hematomas or infarcts, chronic inflammation, granulomatous disease or metastatic disease cannot be ruled out, but are less likely.

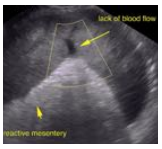
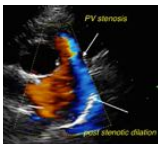
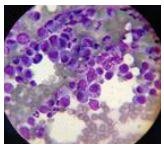
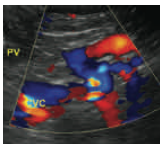
Otherwise, unremarkable abdomen.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Alanine Aminotransferase (ALT) - ALT is more liver specific than other enzymes. It is a good indicator of active liver damage (cell membrane disruption, cellular necrosis) if the value is increased by at least 3-4 times normal. Differentials include infectious disease, including Leptospirosis, inflammatory disease (ie. active hepatitis, copper, other), toxic insult as well as infiltrative neoplasia.

ALT levels vary in cases of vascular anomalies such as microvascular dysplasia and portosystemic shunts (PSS), but are often less significantly increased.

Non primary hepatic causes of increased ALT can include a variety of other metabolic conditions including, but not limited to, pancreatitis, gastroenteritis, parasitic disease, dental disease, vacuolar or endocrine hepatopathy from diabetes mellitus or hyperadrenocorticism (steroid-induced),

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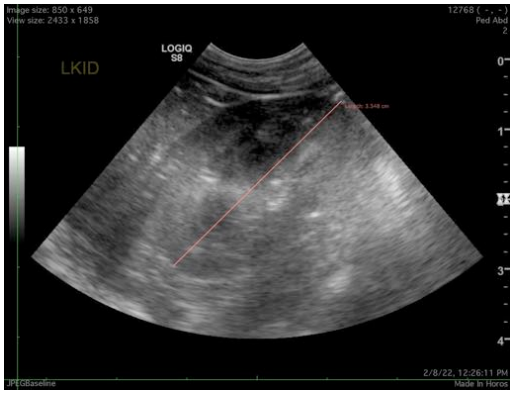
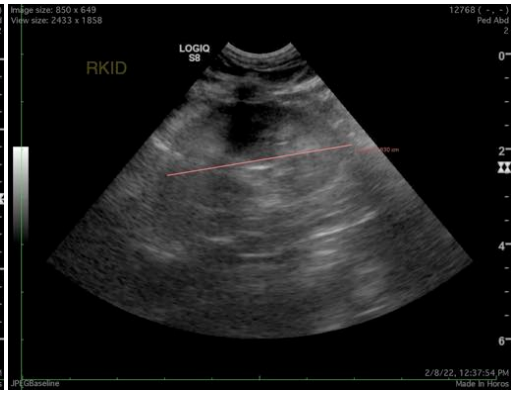
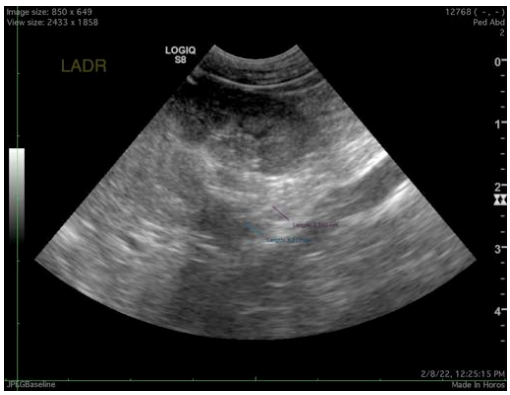
hypoadrenocorticism, certain drugs (e.g. phenobarbital, corticosteroids, azathioprine, etc.), and muscle ALT (more likely if AST and CK concurrently increased).

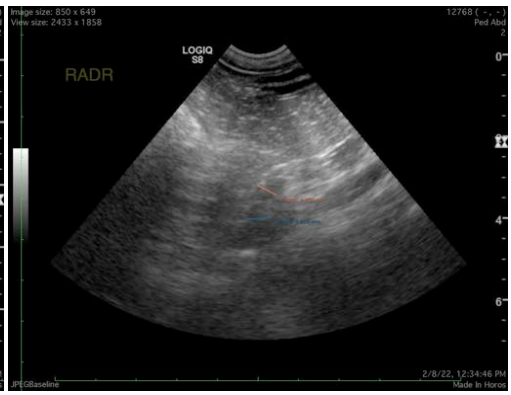
Mild increase in bile acids reported is not indicative of decreased liver function and given the presence of a urinary tract infection when the ALT was discovered to be mildly increased recommendations include rechecking it now that the urinary tract infection has reportedly been cleared. Testing for Leptospirosis can be considered if it is not improved.

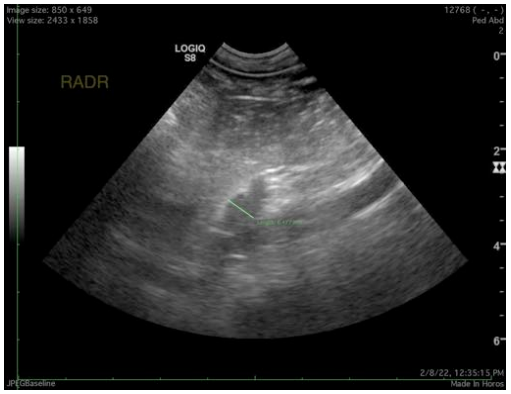
Monitor splenic nodules for changes in size and/or appearance, as myelolipomas typically remain unchanged, or fine needle aspirate of the spleen if patient's coagulation status is appropriate.

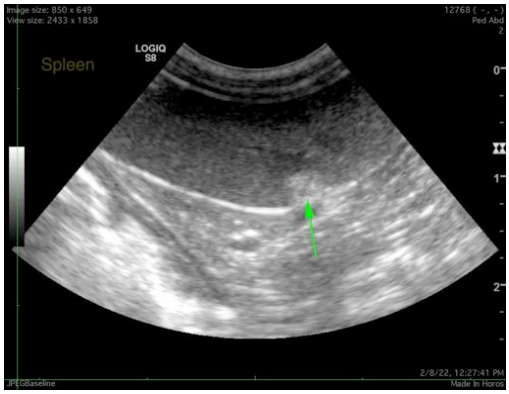












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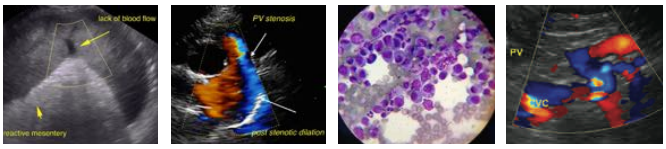

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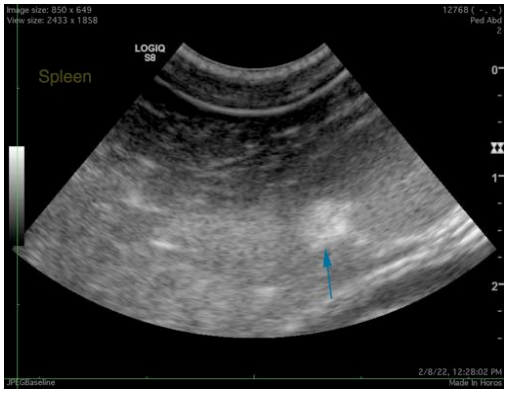

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM DACVIM

Beth.Johnson@SonoPath.com