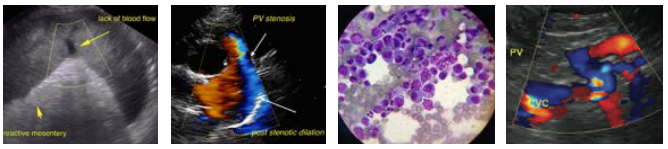
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Fern Nolan

SPECIES
Canine

BREED
Chiuahua

SEX
Spayed Female

AGE
5 years

WEIGHT
10.3 lbs

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
A Murphy CVT

HOSPITAL NAME
Wauwautosa

REFERRING VET
Dr. Binor

INVOICE
92735

DATE
10/28/21

PRESENTING CLINICAL SIGNS

History: Here for a dental prophy today. On pre surgical bloodwork the ALT was found to be elevated ALT 276 (10-125). It was 191, 7/2020. Fern is not clinical for hepatic disease. Plan to image abdomen and determine etiology for elevated ALT
Abnormal PE/Chem/CBC/UA Results: Rest of CBC/Chem was normal

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 (3.79 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 (3.88 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 (1.36 cm long, 0.48 cm at cranial pole and 0.45 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable.

Right adrenal gland is normal in size (1.39 cm long, 0.68 cm at cranial pole and 0.54 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable.

Spleen

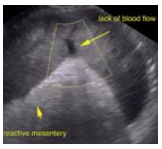
Spleen is subjectively normal in size with normal smooth margins. Parenchyma is normal in echogenicity and echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

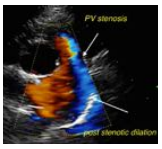
Liver

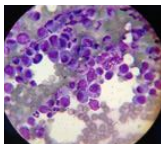
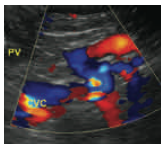
Liver is subjectively normal in size. Margins are sharp and smooth. It has normal homogenous echotexture and normal echogenicity. No focal lesions are observed. Visible vasculature appears normal. GB is moderately distended with anechoic bile and gravity dependent echogenic sediment. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The visible gastric wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm). The stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.





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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

Gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

ALT is more liver specific then other enzymes. It is a good indicator of active liver damage such as cell membrane disruption or cellular necrosis. If the value is increased by at least 3-4 times normal. Differentials include infectious disease including Leptospirosis, inflammatory disease (such as active hepatitis, copper, other), toxic insult as well as infiltrative neoplasia. ALT levels vary in cases of vascular anomaly such as microvascular dysplasia and portosystemic shunt that 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 for diabetes mellitus or hyperadrenocorticism, hypoadrenocorticism, certain drugs such as Phenobarbital, cortical steroids, Azathioprine etc, and muscle ALT (more likely if AST and CK are concurrently increased).

Recommendations include pre dental antibiotics and antibiotics for several days to a week following the dental and a recheck of the ALT. If ALT remains increased following empirical antibiotics then testing for Leptospirosis is recommended. If negative and ALT is persistently increased then I recommend bile acids to further investigate liver function. Ultimately if the ALT remains increased and an underlying cause cannot be found a liver biopsy is recommended.

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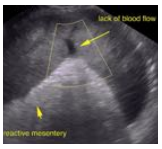
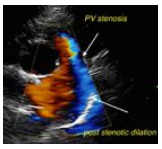
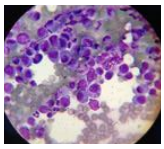
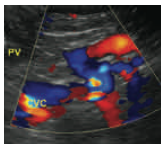

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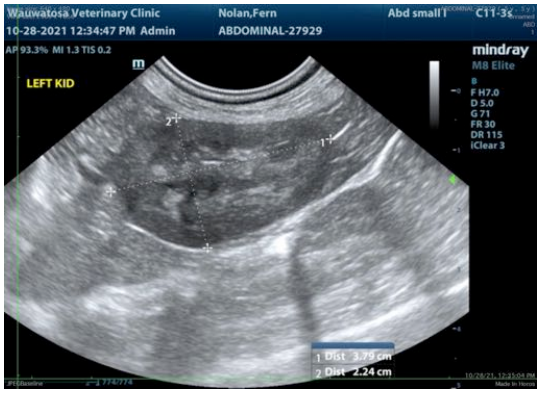

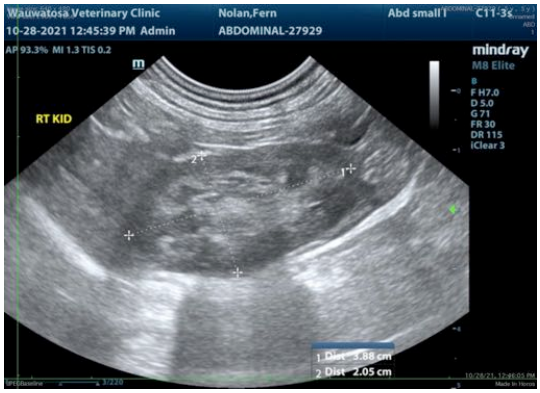

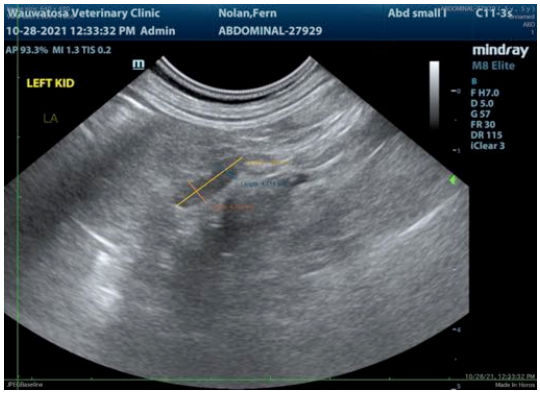

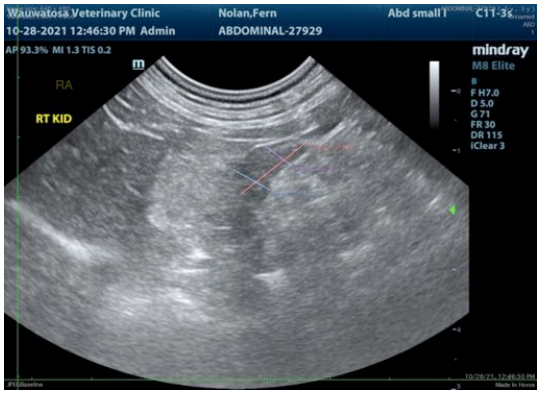

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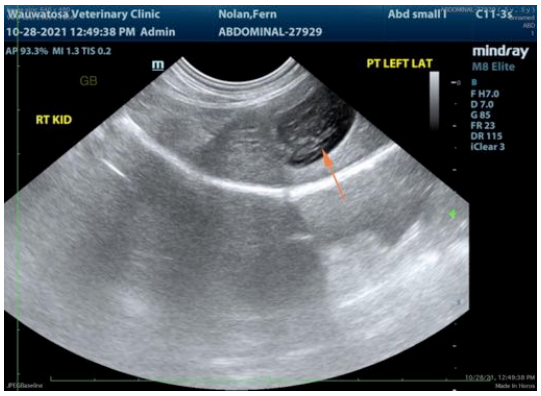

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM DACVIM

Beth.Johnson@SonoPath.com