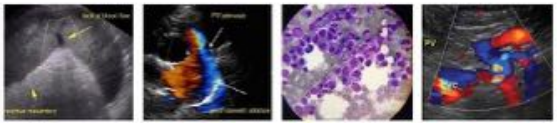


PATIENT

Kelso Banyard

SPECIES

Canine

BREED

Jack Russell Terrier

SEX

Male, neutered

AGE

9 Yrs.

WEIGHT

25.2 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Dog and Cat Clinic of Niagara

REFERRING VET

Dr. Haidy

DATE

6/1/22

PRESENTING CLINICAL SIGNS

History: Not eating, vomiting and gagging. Increased liver values. On Hepatosyl-LQ, Baytril and Ursodial.
Abnormal PE/Chem/CBC/UA Results: Elevated ALP, GGT, Bilirubin, ALT, Total Protein and Albumin.

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 visible portion of the proximal urethra are normal.

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

The left kidney is normal in size (4.86 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal size (5.62 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.52 cm at cranial pole) (0.48 cm at caudal pole) (1.82 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 (1.06 cm at cranial pole) (0.62 cm at caudal pole) (1.62 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

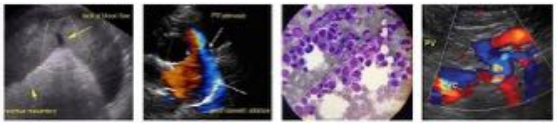
The spleen is normal in size (1.77 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively prominent in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and homogeneous in appearance. No focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is mildly distended. The wall is thin and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is mildly distended with gas and ingesta. The gastric wall is normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is segmentally



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dilated with gas and chyme. 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 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:

- Based on the clinical history, a hepatopathy is suspected. Differentials should be based on the liver enzyme pattern. If the ALT is disproportionately elevated compared to the ALP, inflammatory disease (i.e., bacterial cholangiohepatitis, chronic active hepatitis), Leptospirosis and hepatotoxicity would be the primary considerations. Infiltrative neoplasia is also possible but considered less likely given the sonographic appearance of the liver. If the ALP is disproportionately elevated relative to the ALT, then more benign pathology (i.e., vacuolar hepatopathy) would be more likely.

Secondary Findings:

- Bilateral chronic renal changes with dystrophic mineralization.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- If the ALT is disproportionately elevated compared to the ALP, consider hepatic tissue sampling (i.e., fine needle aspirate or surgical biopsy). Surgical biopsies are preferred in that they 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 copper quantitation are recommended. Leptospirosis testing should also be considered.

- If the ALP is disproportionately elevated compared to the ALT, consider rechecking a total bilirubin to determine if the initial elevation as artifactual (i.e., hemolyzed sample). If the recheck total bilirubin is normal, serial monitoring of the patient's liver values is recommended with a repeat ultrasound +/- hepatic tissue sampling if the values continue to increase.

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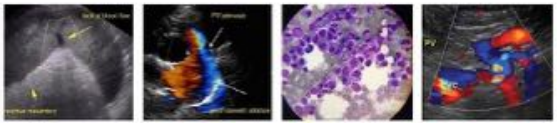

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IMAGING PERFORMED BY
289-808-2608 infoethefocalzone.com

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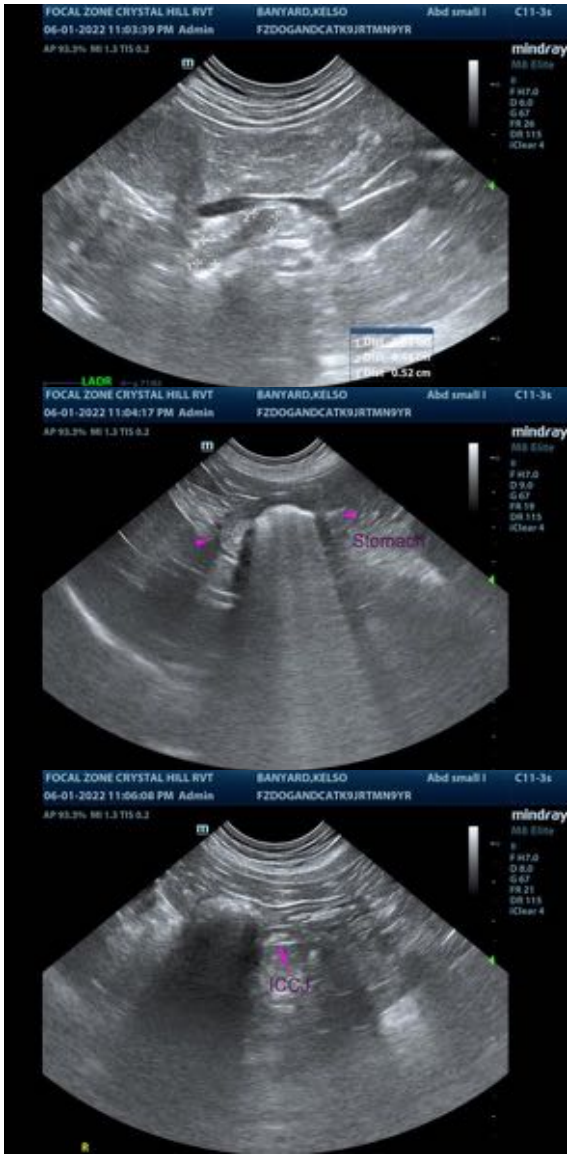

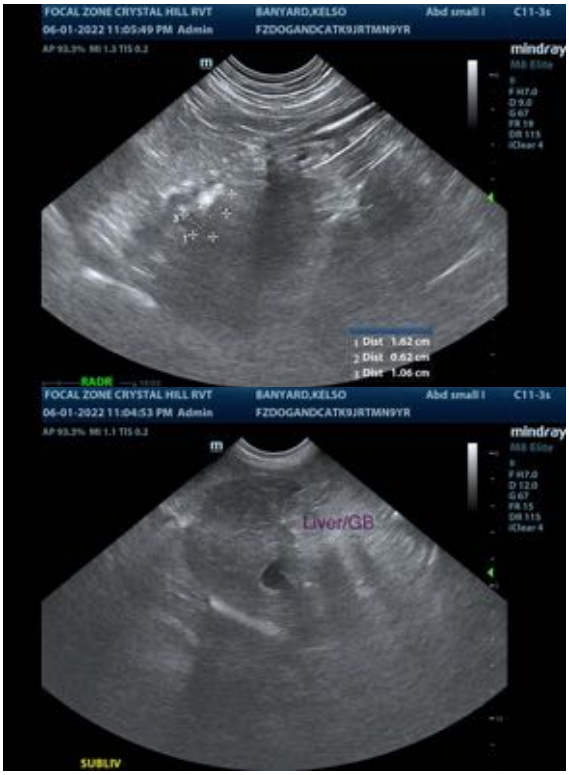

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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 ACVIM (*Small Animal Internal Medicine*)

Andrea.nicastro@sonopath.com

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6/1/22