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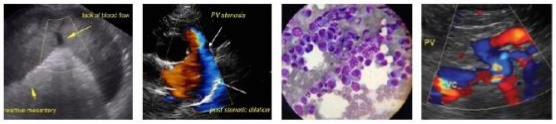


THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Coco Harris

SPECIES

Canine

BREED

Chihuahua

SEX

Neutered Male

AGE

13 years

WEIGHT

4.6 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Kelly Reschny

HOSPITAL NAME

Snelgrove VS

REFERRING VET

Loannou

INVOICE

10914

DATE

5/18/22

PRESENTING CLINICAL SIGNS

History: Elevated liver values found on routine bloodwork. Was on aventi liver tablets - values initially improved then worsened. Another trial of ursodial - values have continued to worsen. meds: ursodiol

Abnormal PE/Chem/CBC/UA Results: 02-09-22: ALT 392 (10-125), Cl 102 (109-122) 02-25-22: ALT 289 (10-125), K 6.2 (3.5-5.8), Cl 103 (109-122) 04-05-22: ALT 312 (10-125) SDMA 15 (0-14), UREA 10.1 (2.5-9.6), TP 85 (52-82), GLOB 48 (25-45) 05-10-22: ALT 393 (10-125)

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 size (3.33 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. Renal vasculature is normal.

The right kidney is normal size (3.16 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. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is mildly enlarged (1.81 cm cranial; 0.64 cm caudal; 1.88 cm length Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature are normal.

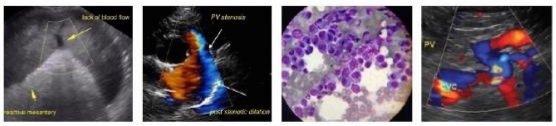
The right adrenal gland is mildly enlarged (1.70 cm cranial; 0.58 cm caudal; 1.97 cm length). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.03 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 in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative, or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed.



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The gall bladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal/not seen.

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 pyloric outflow tract is patent. 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 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

- Mild, bilateral adrenomegaly

*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)) cannot be excluded.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Leptospirosis testing can be considered, however, given the chronicity of the liver enzyme elevations, this differential is considered less likely, and testing may be of low yield.
- Consider pre-and postprandial serum bile acids to evaluate for hepatic dysfunction. Ultimately, hepatic tissue sampling (i.e., fine-needle aspirate or surgical biopsy) may be necessary to get a definitive diagnosis. Surgical biopsies would be ideal in that they more likely to be representative of global organ pathology. If pursued, aerobic and anaerobic bile cultures, should be obtained along with hepatic tissue samples for potential copper quantitation. Thoracic radiographs should be performed prior to anesthesia to assess cardiopulmonary status, particularly given the patient's age.
- If biopsies are not to be pursued at this time, consider empirical treatment for bacterial cholangiohepatitis (amoxicillin-clavulanic acid, +/-metronidazole, Denamarin). If no improvement in the liver values is seen within 7-10 days of initiating therapy, antibiotics should be discontinued, and hepatic tissue sampling reconsidered. If liver values improve, continue therapy for at least 4-6 weeks and 1 week beyond normalization of the liver values.

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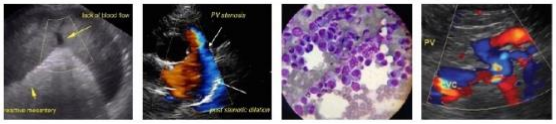

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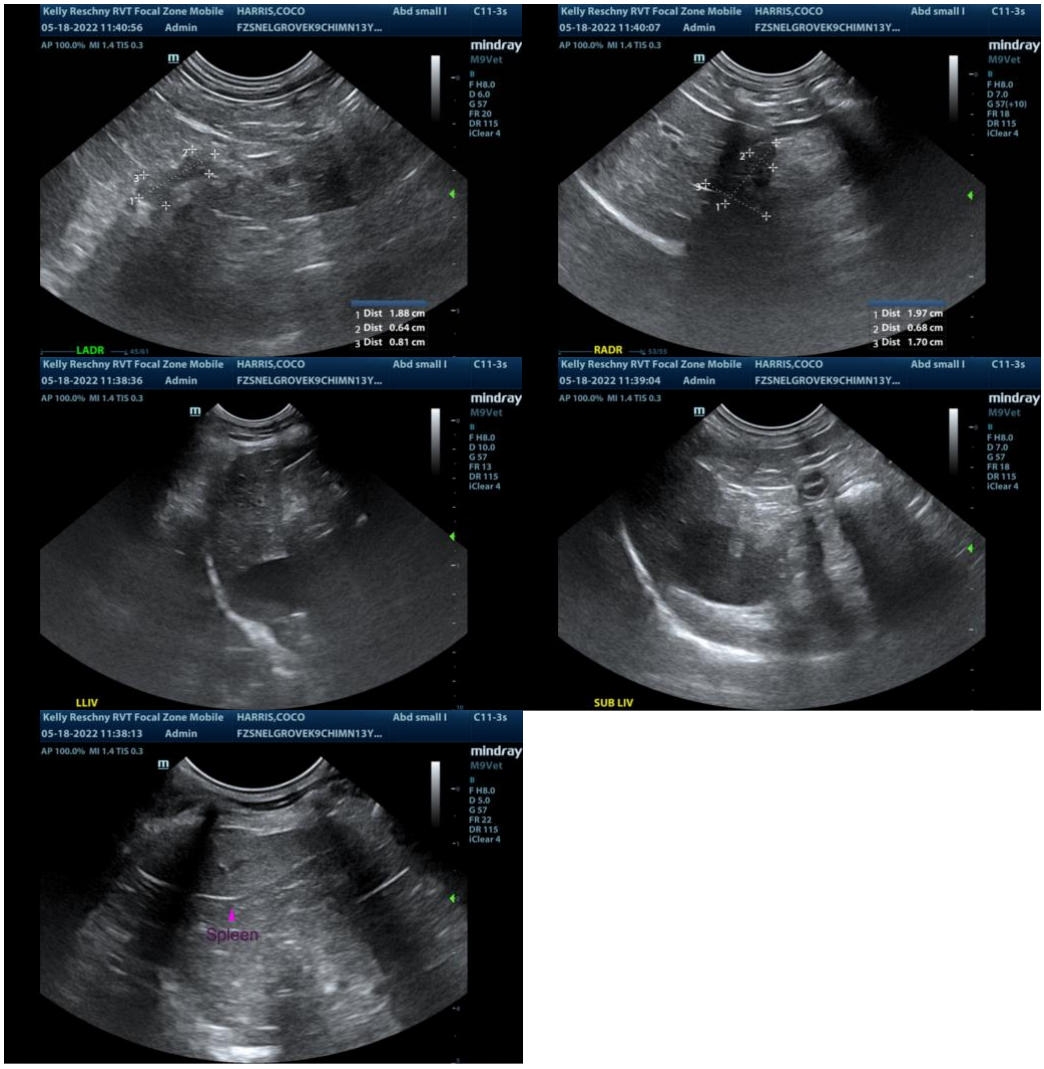

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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