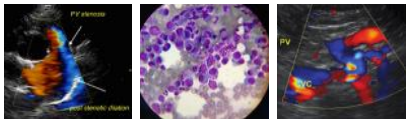
IMAGING PERFORMED BY

IntraPet.com



SonoPath
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DATE

2/15/2022

PATIENT

Sierra Podhorniak

SPECIES

Canine

BREED

Rough Coated Collie

SEX

Female Spayed

AGE

5-20-2016

WEIGHT

56 lbs

INTERPRETED BY

Andrea Nicastro, DMV, Diplomate DACVIM (Small Animal Internal Medicine)

HOSPITAL NAME

Fork Veterinary Hospital

REFERRING VET

Dr. Doherty

INVOICE

10377

PRESENTING CLINICAL SIGNS

History: Dog has a history of atopy since early 2019. Seen at Long Green Dermatology on a regular basis beginning May 2019 and allergy tested 6/2020 with multiple grass and weed sensitivity. Dog on long term Apoquel therapy. Seen at Long Green 1/18/2022 and blood panel showed elevated ALT with other liver parameters WNL. Dog in need of a elective vulvoplasty due to hooded vulva and chronic licking and lesions to skin folds in area. A repeated blood profile 2/4/2022 shows a consistent elevation to the ALT enzyme. Dermatologist consulted and he indicated that it is very unusual or uncommon to see ALT elevated due to the use of Apoquel. He recommended further investigation into the cause of the elevated enzyme especially if considering anesthesia. Owner concerned as well as the dog is asymptomatic at this time. A bile acid profile is pending.

Current Medications: Apoquel 8 mg once daily. Oral Immunotherapy drops - for atopy.
Lab Results: 1/18/2022 - ALT 371 (12-118); Chol 333 (92-324). 2/4/2022 - ALT 323 (18-121); Chol 329 (131-345).
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Stephanie Pearce RDCS, RVT.

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 mildly 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 presented normal size (7.18 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. A hyperechoic medullary band is observed adjacent to the corticomedullary junction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney presented normal size (6.91 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. A hyperechoic medullary band is observed adjacent to the corticomedullary junction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in length, with a slightly flattened contour (0.33 cm at cranial pole) (0.39 cm at caudal pole) (2.40 cm in length); 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 in length, with a flat contour (0.32 cm at cranial pole) (0.29 cm at caudal pole); 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 (1.45 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.

The gall bladder lumen is moderately distended. The wall is thin and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal.

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 small intestinal lumen is not dilated. The small intestinal wall thickness is normal (xxx cm) with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive or overt infiltrative 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

- An obvious cause for the patient's elevated ALT is not identified in this study. However, a microscopic hepatopathy (i.e., bacterial cholangiohepatitis, chronic active hepatitis, hepatotoxicosis (i.e., copper, drug-induced), reactive hepatopathy, Leptospirosis, other) is considered likely.

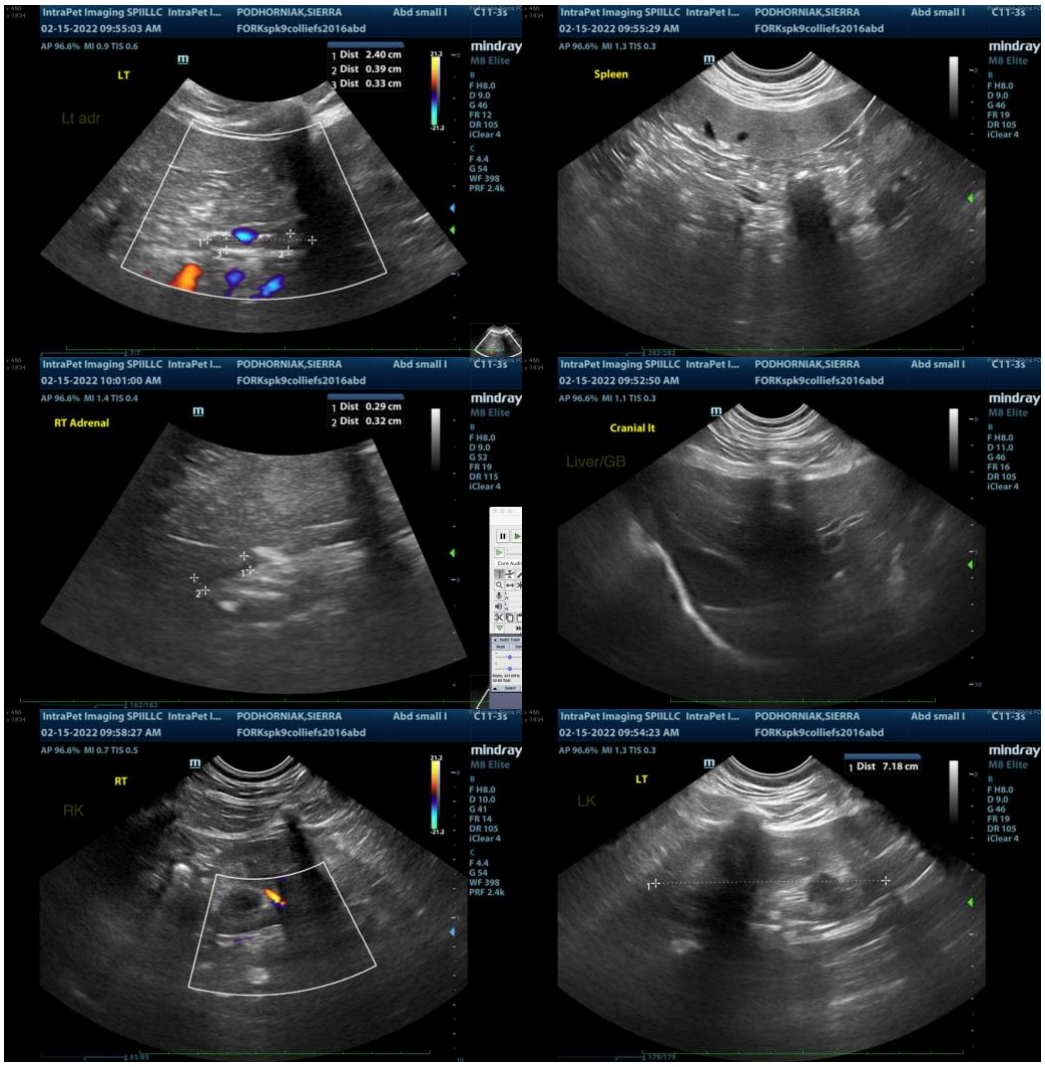
Secondary Findings

- The hyperechoic medullary bands seen in both kidneys may be a benign incidental finding. Alternatively, a subclinical renal disease may be present.
- The flattened adrenal glands may be a normal variant or could be consistent with early atrophy (i.e., secondary to hypoadrenocorticism)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Consider Leptospirosis testing (i.e., blood and urine PCR, serology).
- To further evaluate for a microscopic hepatopathy, a liver biopsy with aerobic and anaerobic bile cultures, as well as acquisition of additional hepatic tissue sampling for potential copper quantitation is recommended. A fine-needle aspirate would be a more conservative approach. However, hepatic cytology may not be representative of the underlying disease process.

- If medical management would like to be attempted prior to tissue sampling, consider empirical treatment for bacterial cholangiohepatitis (i.e., amoxicillin- clavulanic acid, hepatic antioxidants). If no improvement in the liver values is seen within 7-10 days of initiating therapy, antibiotics should be discontinued and hepatic tissue sampling revisited.



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.

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