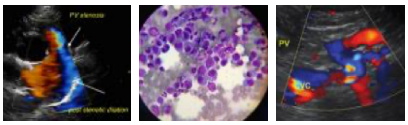
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
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DATE

9/23/21

PATIENT

Puck Driver

SPECIES

Canine

BREED

Yorkshire terrier

SEX

Male, intact

AGE

6/6/2016

WEIGHT

4.2 lbs.

INTERPRETED BY

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

HOSPITAL NAME

Eastern Animal Hospital

REFERRING VET

Dr. Sole

INVOICE

12250

PRESENTING CLINICAL SIGNS

History: PUPD ~1mo, elevated liver values, still intact.

Current Medications: No current medications.
Lab Results: Elevated liver values, low USG, no evidence of urinary infection.
Radiographs: Not provided by the veterinarian.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Sedation not required for scan.
Stat Report: STAT report not requested by the veterinarian.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended. The wall is normal in thickness with a smooth mucosal surface. A small amount of mineralized debris (+/- tiny calculi) are observed within the lumen. The region of the trigone and the visible portion of the proximal urethra are normal.

The prostate is normal in size (0.82 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal size (3.71 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. A few nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (4.02 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. A few nephroliths were visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.35 cm at cranial pole) (0.37 cm at caudal pole) (1.09 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 (0.31 cm at cranial pole) (0.32 cm at caudal pole) (1.13 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 (0.99 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. Intrahepatic vasculature and biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1:1. There is no obvious extrahepatic portocaval shunts. However, there is vertical vessel approximately 2 cm from the portal hilus which could represent a splenoazygous shunt. 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/not seen. The portal vein: caudal vena cava ratio is approximately 1:1.

Gastrointestinal

The gastric lumen is distended with gas, ingesta and a small amount of fluid. 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 segmentally dilated with 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

- Bilateral chronic renal changes with non-obstructive nephroliths.
- Urinary bladder sand +/- tiny calculi.
- An obvious cause for the patient's clinical signs and elevated liver values is not identified in this study. There is no obvious evidence of a congenital extrahepatic portosystemic shunt. Differentials for the elevate liver values include microvascular dysplasia, bacterial cholangiohepatitis, leptospirosis, chronic active hepatitis, hepatotoxicity (i.e., copper), other hepatopathy.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Pre- and post-prandial serum bile acids are recommended to assess hepatic function. If substantially elevated (i.e., post-prandial > 70), consider a Protein C level and further imaging (i.e., additional sonographic images and/or contrast abdominal CT scan) to further assess for a splenoazygous shunt.
- Depending on the results of the above diagnostics, consider the following:

    1. Leptospirosis testing (i.e., blood and urine PCR, serology).
    2. Fine needle aspirate of the liver (if clotting status is appropriate). A 25-gauge needle should be used. If cytologic evaluation is inconclusive, a surgical liver biopsy with aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for copper quantitation may be warranted.


IntraPet Imaging SPIILLC IntraPet I... DRIVER,PUCK Abd small I C11-3s
09-23-2021 09:14:02 AM Admin EAHpdk9yorkiemi2016abd
Spleen
mindray


IntraPet Imaging SPIILLC IntraPet I... DRIVER,PUCK Abd small I C11-3s
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LT
LK
1 Dist 3.71 cm
mindray


IntraPet Imaging SPIILLC IntraPet I... DRIVER,PUCK Abd small I C11-3s
09-23-2021 09:16:23 AM Admin EAHpdk9yorkiemi2016abd
RT
RK
1 Dist 4.02 cm
mindray


IntraPet Imaging SPIILLC IntraPet I... DRIVER,PUCK Abd small I C11-3s
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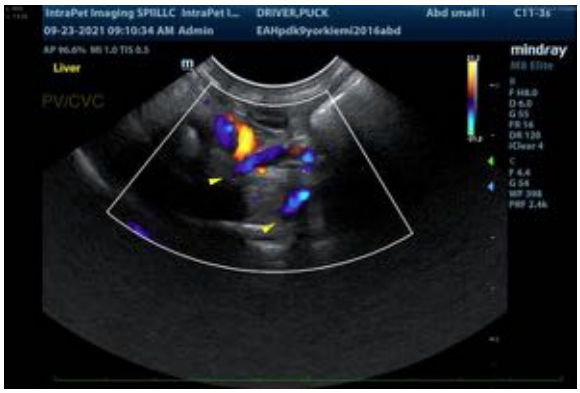
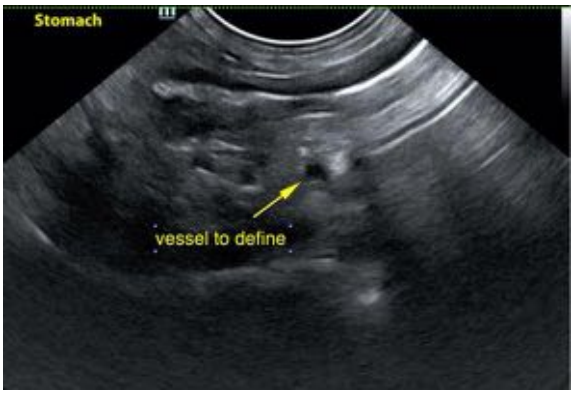
RT
RI adr
1 Dist 1.13 cm
2 Dist 0.32 cm
3 Dist 0.31 cm
mindray


IntraPet Imaging SPIILLC IntraPet I... DRIVER,PUCK Abd small I C11-3s
09-23-2021 09:17:31 AM Admin EAHpdk9yorkiemi2016abd
LT
LI adr
1 Dist 1.09 cm
2 Dist 0.37 cm
3 Dist 0.35 cm
mindray


IntraPet Imaging SPIILLC IntraPet I... DRIVER,PUCK Abd small I C11-3s
09-23-2021 09:10:09 AM Admin EAHpdk9yorkiemi2016abd
Liver
mindray





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.

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)
Andrea.nicastro@sonopath.com