

DATE PRESENTING CLINICAL SIGNS

1/24/2022

History: Dog was presented with descended abdomen, dog has normal appetite, no cardiac murmur, normal respiration. abdominal X-Rays confirmed ascites, B/W indicates low blood proteins, trying to r/o hepatobiliary disease, neoplasia, IBD. Dog was presented with descended abdomen, dog has normal appetite, no cardiac murmur, normal respiration. abdominal, Lab Results: B/W indicates low blood proteins, trying to r/o hepatobiliary disease, neoplasia, IBD. Attached separately.

PATIENT

Baby Holman

Radiographs: X-Rays confirmed ascites.

SPECIES

Canine

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Declined.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

BREED

Yorkshire terrier

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

SEX

Female, spayed

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.

AGE

11/12/2015

Left kidney is normal in size (3.73 cm), shape and echogenicity. It has smooth peripheral margination, but has a subjectively thick cortex relative to the medulla and an overall hyperechoic appearance relative to other organs. Decreased corticomedullary distinction is noted. There is no pyelectasia noted. No mineral or infarct is observed.

WEIGHT

8 lbs.

Right kidney is normal in size (3.79 cm), shape and echogenicity. It has smooth peripheral margination, but has a subjectively thick cortex relative to the medulla and an overall hyperechoic appearance relative to other organs. Decreased corticomedullary distinction is noted. There is no pyelectasia noted. No mineral or infarct is observed.

INTERPRETED BY

Beth Johnson, DVM
DACVIM

Adrenal Glands

Left adrenal gland is normal in size (1.6 cm long x 0.48 cm at cranial pole and 0.55 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable.

HOSPITAL NAME

Glen Burnie AH

Right adrenal gland is normal in size (1.36 cm long, 0.47 cm at cranial pole and 0.54 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable.

REFERRING VET

Dr. Shah

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.

INVOICE

12893

Liver

Liver is subjectively mildly enlarged in size. Margins are smooth, but round. It has normal homogenous echotexture. The parenchyma is diffusely hypoechoic characterized by more prominent than normal portal vein walls. No nodules or masses are evident. Visible vasculature appears normal. Bright, hyperechoic, foci are present multi-focally within the intrahepatic biliary system. This is consistent with intrahepatic choleliths. Gallbladder is mildly distended with anechoic contents. The wall is smooth without visible thickening. There is no evidence of common bile duct dilation.

Gastrointestinal

The visible gastric wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm). The stomach is empty.

The small intestinal lumen is empty. The small bowel mucosa has hyperechoic striations perpendicular to the lumen and appears subjectively thicker than normal.

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. There is a very large amount of anechoic, free fluid throughout the abdomen.

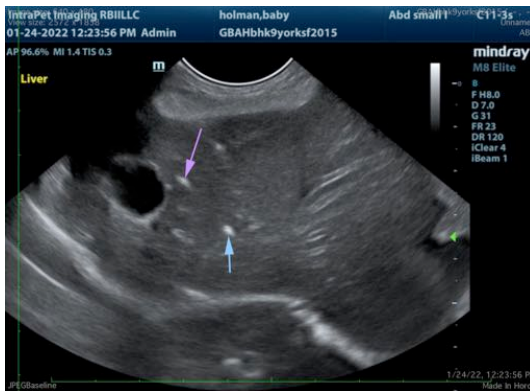
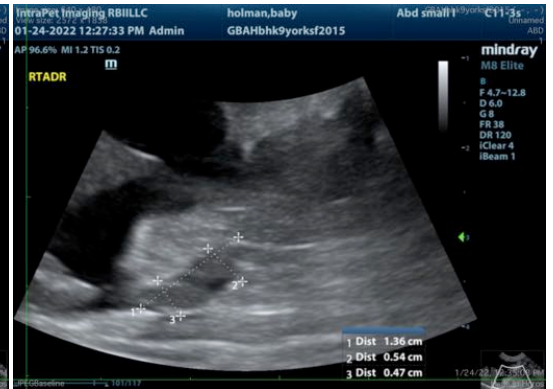
ULTRASONOGRAPHIC FINDINGS

- Lymphangiectasia – consistent with dilated small intestinal lymphatics secondary to infiltrative inflammatory bowel disease or primary lymphangiectasia. Infiltrative neoplasia is also possible and can only be differentiated with histopathology.
- Large amount of anechoic free fluid.
- Hypoechoic hepatomegaly with incidental intrahepatic choleliths suspected. These changes are consistent with acute hepatitis or cholangiohepatitis, infiltrative neoplasia such as round cell neoplasia is also possible, yet considered less likely.
- Bilaterally hyperechoic kidneys with decreased corticomedullary distinction. Rule out normal age change especially given potential artifact to echogenicity from the marked amount of free fluid versus chronic glomerulonephritis or interstitial nephritis, chronic pyelonephritis, etc.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

**The large amount of free fluid made artifactually change the appearance of some organs and some lesions.

Given the history, low albumin and free fluid likely secondary from the low albumin, combined with the appearance of the small intestines, top differentials are protein losing enteropathy. Therefore, recommendations include gastrointestinal malabsorption panel including TLI, PLI, folate and cobalamin to Texas A&M GI laboratory followed by empirical therapy with a low-fat diet, potentially cobalamin while awaiting cobalamin levels, potentially steroids and Tums to correct any hypocalcemia that may be present while awaiting results. Ultimately when the patient is more stable biopsies of the gastrointestinal tract either endoscopic or full thickness surgical biopsies are necessary to definitively diagnose the underlying bowel disease. Given the appearance of the kidneys a urinalysis is recommended. If there is protein in the urine and quiet sediment a UPC is recommended to rule out a concurrent protein losing nephropathy. Finally the liver changes are likely incidental and not contributing to this patient's overall clinical status. However, if there are changes consistent with hepatitis/cholangiohepatitis such as an increased ALT or ALKP, total bilirubin, persistent GI signs beyond managing the GI disease, etc. then further empirical with Ursodiol +/- broad spectrum antibiotics are recommended.





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

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