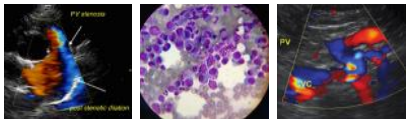
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE

1/23/23

PATIENT

Panda Boyle

SPECIES

Canine

BREED

Labradoodle

SEX

Spayed Female

AGE

4/5/14

WEIGHT

18.8 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Nacke-Horney

INVOICE

20751

PRESENTING CLINICAL SIGNS

On Wednesday: started with diarrhea - continued but still had energy and was eating and drinking – would wake owner up a lot to go outside Friday PM: was left in laundry - when owners came home found piles of vomit with blood - did vomit before the owner left after eating when the owner was running her in the yard - appeared to have diarrhea with blood as well Yesterday held off on food in the AM - did not have any vomiting but still had some diarrhea 5a started vomiting more with blood in it Still want to eat chicken and drinking - still seems energetic History of GI issues - will have GI changes when her diets is deviated Known anxiety Other dog started with diarrhea yesterday and today has been vomiting - vomit today was foamy

Current Medications: None listed.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Rachel Brilhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Left kidney is normal is size (5.04 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed. A hyperechoic band parallel to the corticomedullary border is present.

Right kidney is normal is size (4.78 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed. A hyperechoic band parallel to the corticomedullary border is present.

Adrenal Glands

Left adrenal gland is normal in size (2.07 cm long x 0.61 cm at cranial pole and 0.6 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (1.86 cm long x 0.69 cm at cranial pole and 0.6 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Spleen

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged (swollen contour). Mild parenchymal remodeling with diffusely mildly coarse architecture and increased portal markings is present. No focal nodules or masses are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is non-distended in size. A mildly edematous wall is noted. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Pancreas

Pancreas is prominent (enlarged) in size and mildly irregular in shape with a slightly undulating contour. Parenchyma is coarse in echotexture and heterogenous to hypoechoic in echogenicity.

Free Abdomen

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

Other

Ring downs are visible at the level of the diaphragm.

ULTRASONOGRAPHIC FINDINGS

- Hypoechoic hepatomegaly-This appearance is consistent with an acute hepatopathy or acute cholangiohepatitis. Infiltrative neoplasia (round cell neoplasia) should also be considered.
- A slightly edematous gallbladder wall, which can be seen with a nondistended or empty gallbladder, without significant pathology, but can also represent acute or chronic cholecystitis. This can also be seen with ascites for any reason, as well as other causes of free fluid, including cardiac disease, low albumin, vasculitis, etc. Additionally, it can be seen with autoimmune disease. This finding should be interpreted in combination with the rest of the clinical picture.
- Bilateral medullary rim sign - This finding is of unknown clinical significance and can be a normal variant, often idiopathic. Medullary rim sign can be present with renal disease including FIP, lymphoma, hypercalcemic nephropathy, Leptospirosis, tubular disease, other and should be interpreted in combination with other more specific indications of kidney disease such as isosthenuria, proteinuria, azotemia, etc. This is a common incidental finding in patients with diabetes mellitus.
- Chronic active pancreatitis
- Ring downs are noted, which are suggestive of concurrent pulmonary pathology.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as

well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

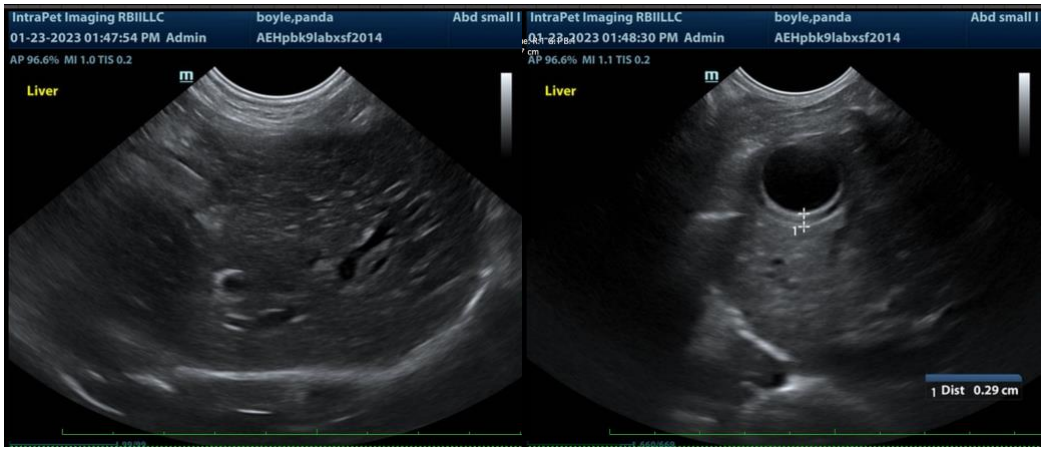
If not recently evaluated, urinalysis and, if indicated based on urinalysis results, urine culture is recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.
Given the appearance of these ultrasound images, cholangiohepatitis or even infiltrative neoplastic disease affecting the liver could be contributing to clinical signs, however, that is considered much less likely given the reported normal chemistry panel. Therefore, further evaluation for other causes of the gastrointestinal signs is recommended with a baseline cortisol. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism. A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

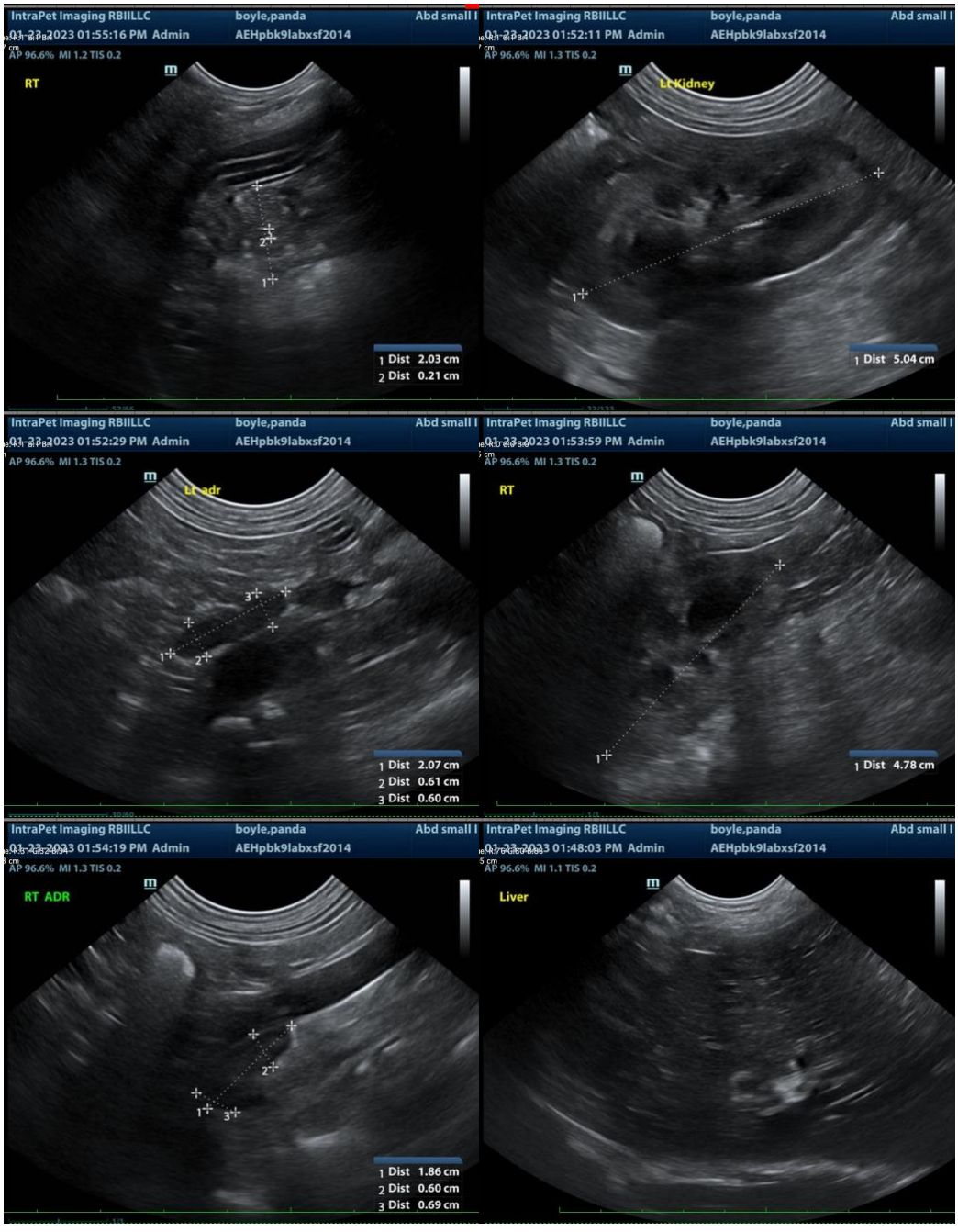
Additionally, given the similar clinical signs reported in the other household dog, a fecal exam is recommended if not recently evaluated, as is a fecal enteropathogen PCR panel (to Texas A&M GI Laboratory) for further evaluation of possible infectious disease.

If clinical signs persist, and/or especially if liver enzymes change, a fine needle aspirate of the liver could also be considered if patients coagulation status is appropriate.

In the meantime, supportive/symptomatic medical management of hemorrhagic gastroenteritis is recommended with antiemetics, gastroprotectants, including sucralfate, a probiotic, such as Visbiome or Proviable, empirical deworming with a 5-day course of Panacur +/- an antibiotic, such as Metronidazole or Tylosin, and at least short-term transition (if tolerated) to a bland easy-to-digest diet.

If clinical signs persist, and a diagnosis is not obtained, recheck imaging, ideally with less gas in the stomach (if possible) is recommended.




IntraPet Imaging RBIILLC
boyle,panda
Abd small I
AEHpbk9labxsf2014
AP 96.6% MI 1.2 TIS 0.2
RT
1 Dist 2.03 cm
2 Dist 0.21 cm
IntraPet Imaging RBIILLC
boyle,panda
Abd small I
AEHpbk9labxsf2014
AP 96.6% MI 1.3 TIS 0.2
Lt Kidney
1 Dist 5.04 cm
IntraPet Imaging RBIILLC
boyle,panda
Abd small I
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Lt adr
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2 Dist 0.61 cm
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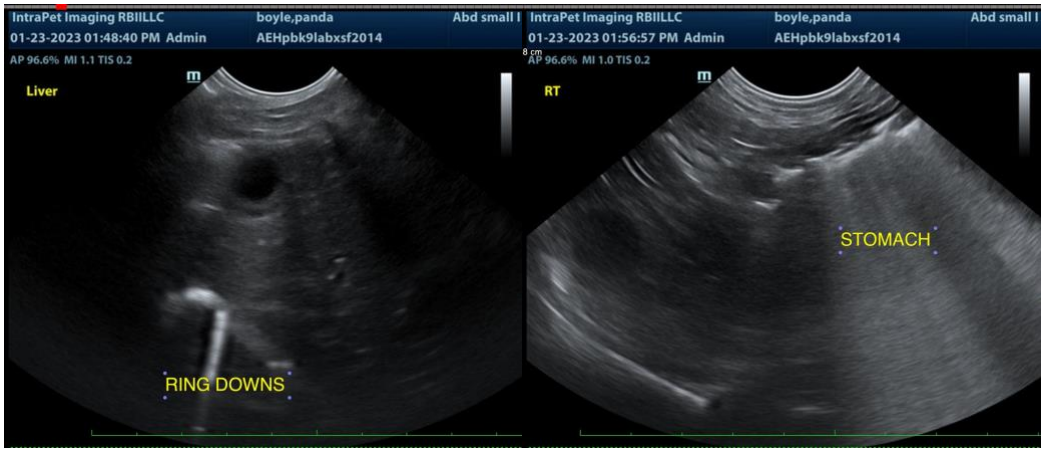
Abd small I
AEHpbk9labxsf2014
AP 96.6% MI 1.1 TIS 0.2
Liver



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
Beth.Johnson@SonoPath.com