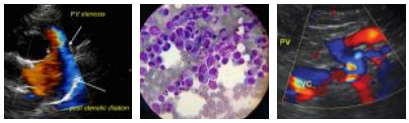
IMAGING PERFORMED BY

IntraPet.com



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DATE
1/2/23

PATIENT
Ramone Wagner

SPECIES
Feline

BREED
DSH

SEX
Neutered Male

AGE
6/21/14

WEIGHT
13.54 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

HOSPITAL NAME
Banfield White Marsh

REFERRING VET
Dr. Racz

INVOICE
20338

PRESENTING CLINICAL SIGNS

History: Non-resolving diarrhea, eating normally with weight loss.

Current Medications: None at this time.
Lab Results: Previous Alt elevation- resolved with Denamarin and Metronidazole.
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. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with incidental suspended lipid in a cat, possibly combined with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The left kidney measures 4.29 cm. The right kidney measures 3.95 cm.

Adrenal Glands

Left adrenal gland is normal in size (0.49 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (0.53 cm), 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 normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. The cystic and common bile duct are tortuous and mildly but pathologically dilated, measuring 0.3 cm to right at 0.4 cm dilated. At the level of the duodenal papilla, there appears to be an echogenic intraluminal density within the common bile duct without visible vascularity, most consistent with biliary sludge/debris, however, tissue/nodule cannot be definitively ruled out.

Gastrointestinal
The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestine demonstrates areas of very mildly thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated. The lumen of the small intestine is empty with no evidence of obstruction or foreign material.

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, hypoechoic to surrounding tissue and has a mildly irregular undulating contour. Parenchyma is coarse with mixed echogenic remodeling noted. Pancreatic duct dilation is noted.

Free Abdomen
There is no evidence of peritoneal effusion.

The mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Chronic active pancreatitis
- Gallbladder debris with a tortuous cystic and common bile duct is concerning for cholangitis/cholangiohepatitis, potentially resolved cholangiohepatitis, given this patients historically but resolved increased liver enzymes. The density at the level of the duodenal papilla likely represents sludge/debris and is not obviously obstructive given the lack of pathologic dilation of the biliary system, however, a nodule, even infiltrative neoplasia, again nonobstructive, cannot be definitively ruled out.
- Mild inflammatory bowel disease (IBD) pattern – Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. No aggressive lymphadenopathy, loss of layering, etc. is noted to make lymphoma more probable, but lymphoma cannot be definitively ruled out without tissue sampling.
- Reactive mesenteric lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely.

Secondary Findings

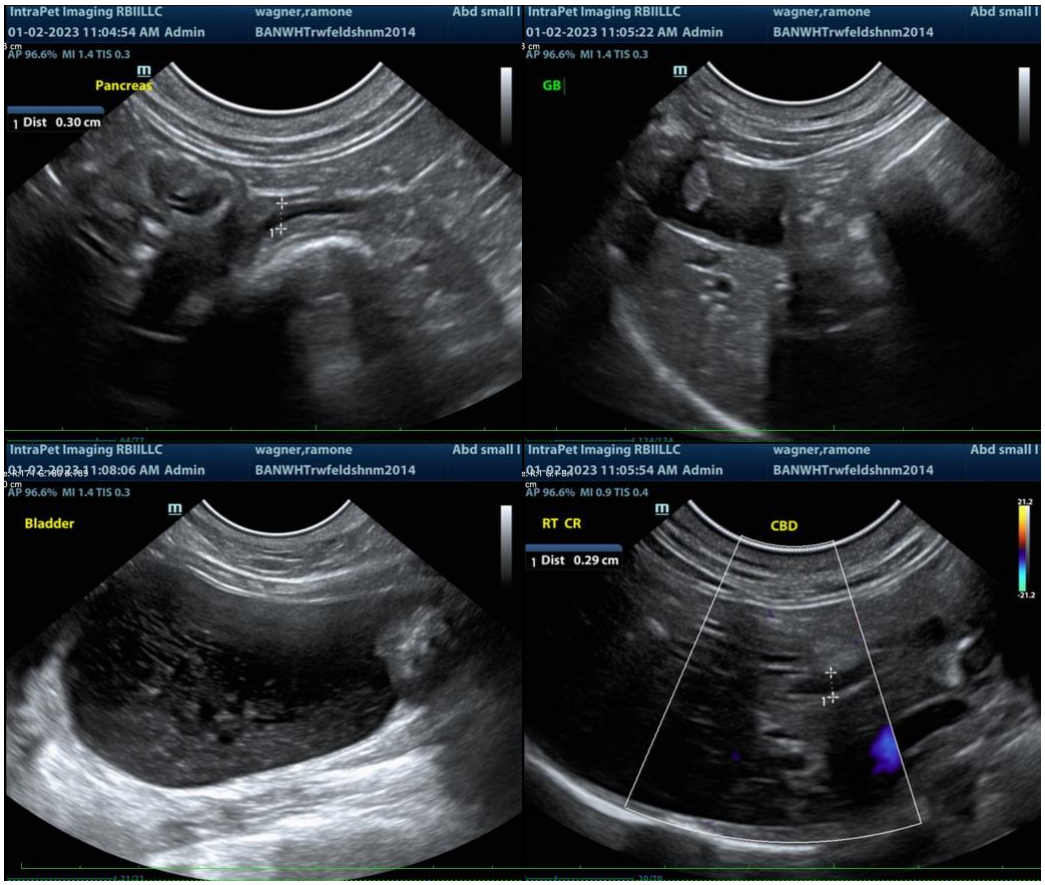
- Moderate to large amount of urinary bladder debris
- Age-related kidney changes

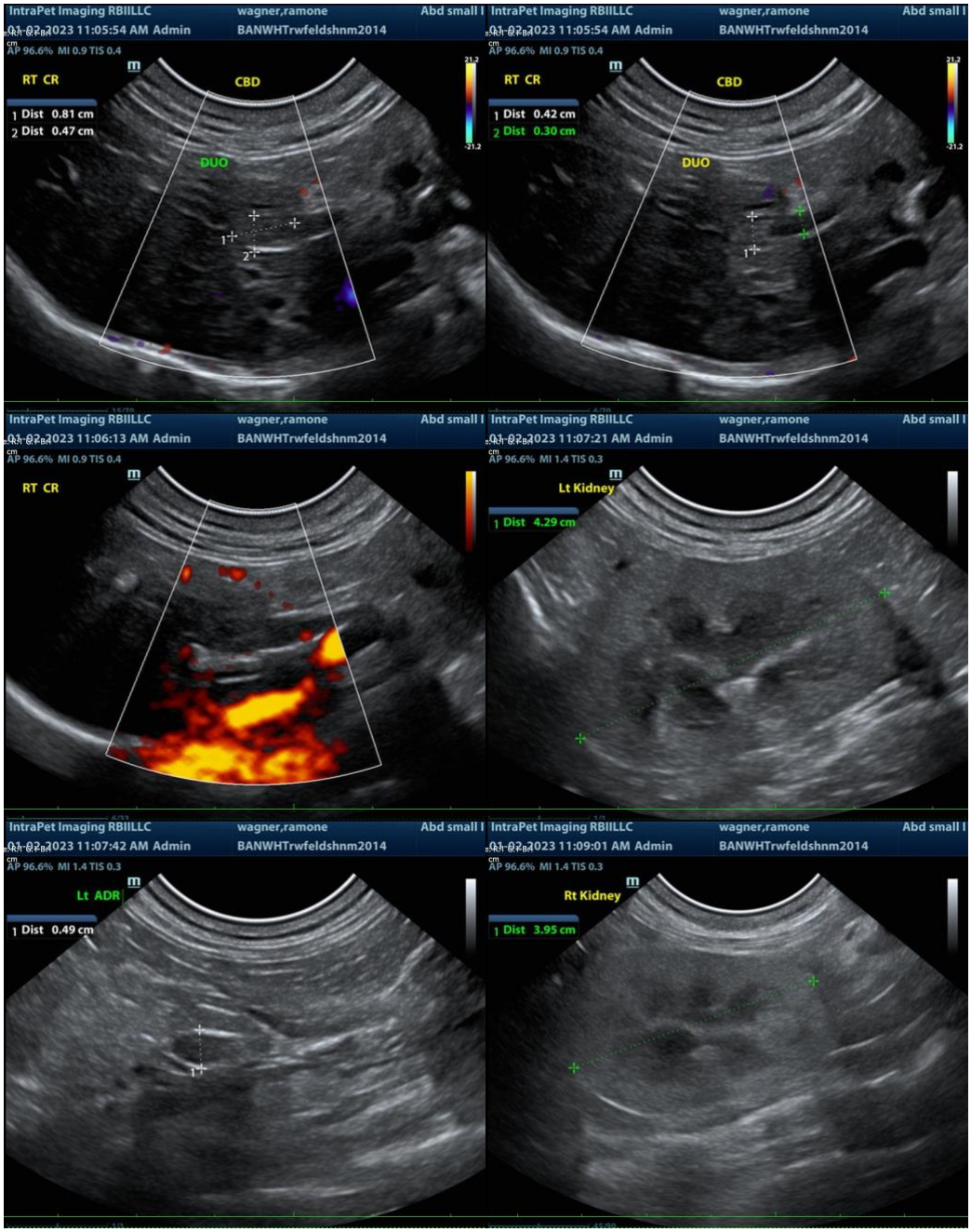
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The changes described above are consistent with chronic "triaditis". Given the currently reported primary clinical sign of diarrhea and weight loss, recommendations include a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory for further evaluation of GI and pancreatic function, followed ultimately by biopsies of the GI tract, being sure to include ileum, if possible, to definitively diagnose, and therefore manage any infiltrative bowel disease present.

Additionally, if not recently evaluated, urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

In the meantime, if laboratory changes and/or clinical signs are concerning for active cholangitis/cholangiohepatitis, etc., then medical management with hepatic nutraceuticals, including Ursodiol and broad-spectrum antibiotics are also recommended. If not, close monitoring of the described biliary debris at the level of the duodenal papilla via ultrasound is recommended, beginning with a recheck ultrasound of the area in 2-3 months or sooner if clinical signs and/or laboratory changes progress.




IntraPet Imaging RBIILLC
wagner,ramone
Abd small I
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BANWHTrwfeldshnm2014
AP 96.6% MI 0.9 TIS 0.4
RT CR
CBD
1 Dist 0.81 cm
2 Dist 0.47 cm
DUO
IntraPet Imaging RBIILLC
wagner,ramone
Abd small I
01-02-2023 11:05:54 AM Admin
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Lt Kidney
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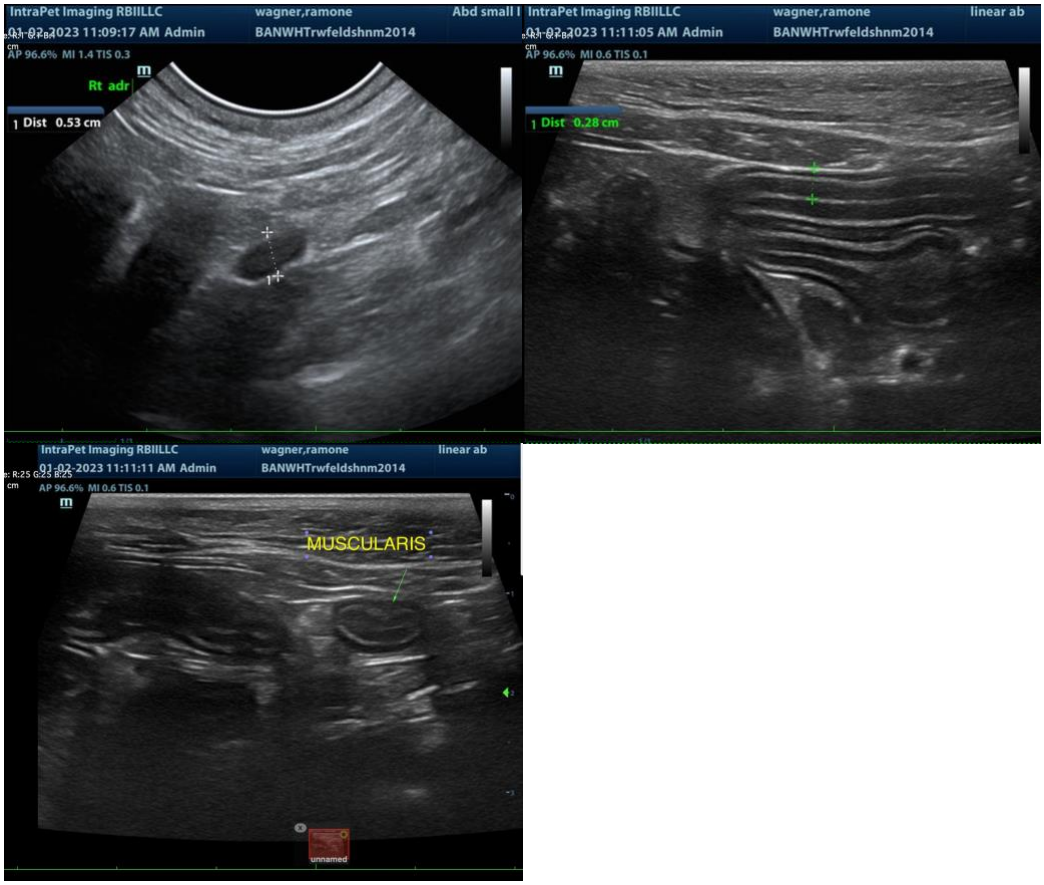
Rt Kidney
1 Dist 3.95 cm



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