

**DATE PRESENTING CLINICAL SIGNS**

2.8.2023

P presented with a 24-hour hx of vomiting, lethargy and hyporexia. pDVM had started pt. on methimazole ~ 1 month prior for hyperthyroidism and enalapril several weeks prior for a single finding of borderline proteinuria (UPC = 0.4). P has had persistent hematuria on free catch urine samples. P was uncomfortable on abdominal palpation with 3/4 PDD on PE. Radiographs were done, no obvious obstruction noted, P treated with SQF, Cerenia, metronidazole, Provable and i/d diet. Improved after 48 hours. Labs performed 2 days later (see below).

PATIENT

Girle Brightwell

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

8/23/2009

WEIGHT

9.8 lbs

Current Medications: Methimazole 2.5mg BID - re-started after GI signs subsided. Did not re-start enalapril per my recommendation, as UPC was 0.4 off of enalapril. Just finished metronidazole 10mg/kg BID (7 day course), Provable combo pack

Lab Results: Geriatric labs 2/3/23: CBC: mild anemia @ 5.9 mill/ul; non-regenerative (was 8.9 mill/ul in Nov. 2022 prior to tx of hyperthyroidism)

mild neutrophilic and monocytic leukocytosis. CHEM: high normal renal values, but decreased since last assessed @ MAVA, mild hypernatremia @ 158, was normal previously, fPL: wnl @ 1.7. UA: USG = 1.015, pH = 6.0, trace protein, 2+ hematuria sediment exam: 30-50 rbc/hpf, else normal. UPC borderline @ 0.4 (off of enalapril for 4+ days)

Radiographs: 1/30/23, rads: Duodenal dilation. Ddx duodenitis due to pancreatitis or infectious dz or duodenal obstruction to to obscured foreign material. Metabolic, endocrine also possible cause of vomiting. Adv - CBC/chem/T4/UA/fPLI. Symptomatic tx recommended. If signs persist or increase in severity, upper GI series or AUS recommended.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

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 moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone and visible portion of the proximal urethra are normal.

The left kidney is normal in size (3.53 cm in length) with a slightly irregular shape. There is a normal 1:3 cortex to medulla ratio with poor corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (3.55 cm in length) with a slightly irregular shape. There is a normal 1:3 cortex to medulla ratio with poor corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size (0.47 cm width) with a normal shape. A 0.41 cm hyperechoic nodule/focus is observed within the parenchyma. The remaining glandular detail are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is normal size (0.48 cm width) with a normal shape. A 0.18 cm hyperechoic focus is observed within the parenchyma. The remaining glandular detail are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

INTERPRETED BY

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

HOSPITAL NAME

Mt. Airy AH

REFERRING VET

Dr. Riley

INVOICE

12170

Spleen

The spleen is normal in size (0.59 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 normal in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen. A few multi-septated cystic lesions are observed throughout the organ (the largest measuring 1.35 cm in diameter). Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1: 1.

The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of aggregated, echogenic suspended debris/sludge is observed within the lumen. The cystic and common bile ducts are normal. The duodenal papilla is normal in size (0.46 cm in width).

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 pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall is normal to mildly thickened (up to 0.34 cm) with a normal layering pattern and appropriate mural detail. There is disruption in the normal 1:3 muscularis: mucosal ratio in most segments. Discreet masses are not identified. The ileocecal colic junction and colonic wall are normal. No obstructive disease is noted.

Pancreas

The base and limbs of the pancreas are normal in size with normal curvilinear peripheral contours. The pancreatic duct is visible but not overtly dilated (0.14 cm in diameter). There is no evidence of peripancreatic 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

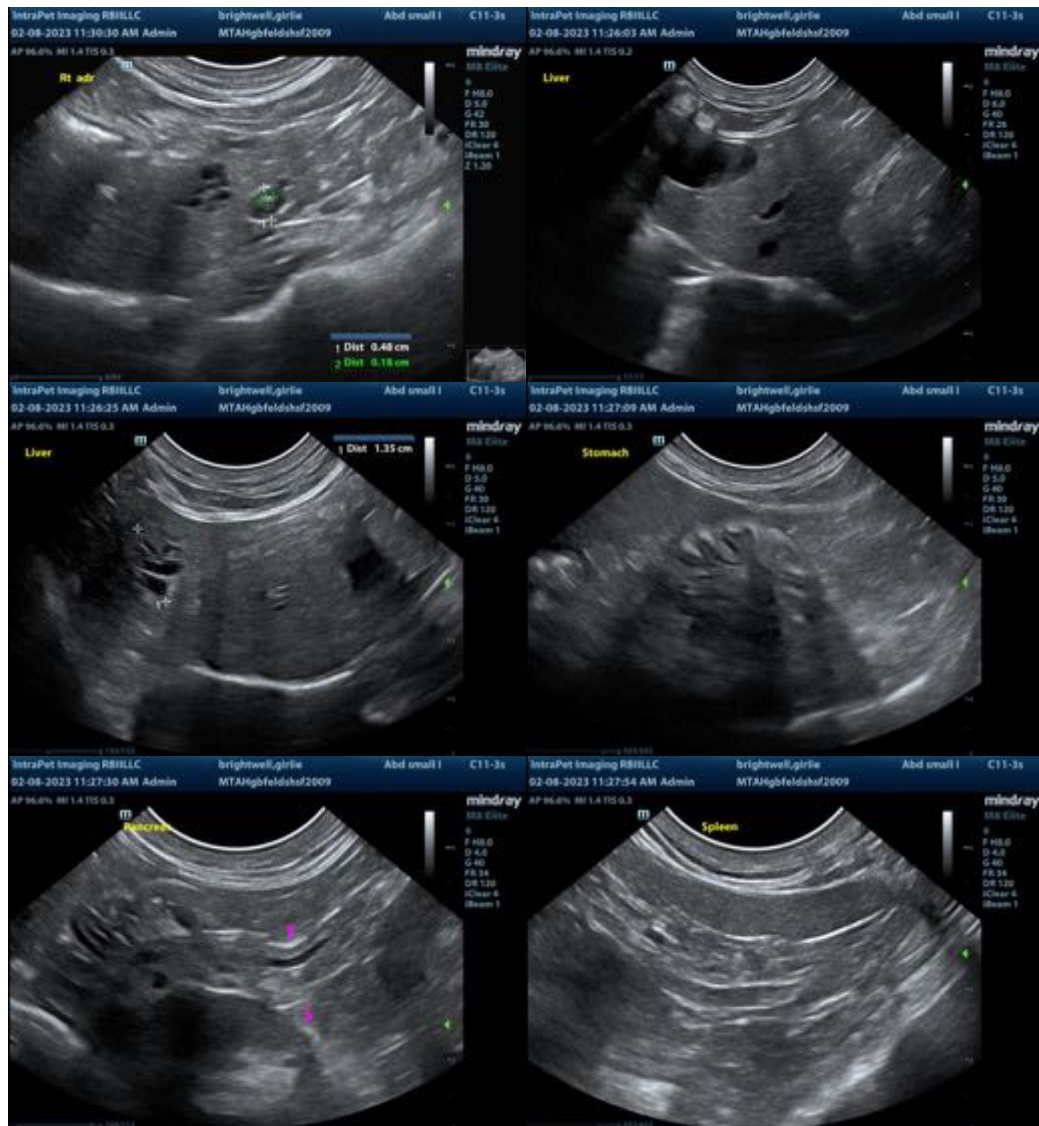
- The small intestinal wall changes are most consistent with inflammatory bowel disease, with some potential for emerging lymphoma.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

Secondary Findings

- Bilateral degenerative renal changes with dystrophic mineralization
- The hyperechoic foci in both adrenal glands likely represent a benign age-related incidental finding.
- The cystic hepatic nodules are most consistent with biliary cystadenomas, with a lower possibility of biliary cystadenocarcinomas.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the bowel and pancreatic changes, the following diagnostics/therapeutics can be considered:
 - Fecal evaluation for ova and Giardia (if not already performed)
 - GI panel including serum cobalamin and folate, TLI and PLI (Send to Texas A&M)
 - Limited antigen or hydrolyzed protein diet trial
 - +/- endoscopic or surgical GI biopsies
 - If the patient is to undergo anesthesia, thoracic radiographs are recommended to assess cardiopulmonary status.
 - While awaiting test results, consider initiation of a fiber supplement.
 - Continuation of the probiotic is also recommended.





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.

Andrea Nicastro, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com