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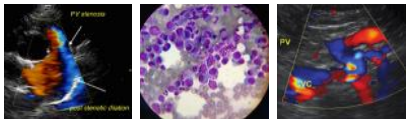

SonoPath
Clinical Sonography & Telecytology
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DATE

12/8/21

PATIENT

Artax Stanco

SPECIES

Canine

BREED

Pomeranian

SEX

Neutered Male

AGE

1/23/2011

WEIGHT

7.12 Lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Frederick Road AH

REFERRING VET

Dr. Beyer

INVOICE

12857

PRESENTING CLINICAL SIGNS

History: weight loss, decreased appetite, elevated renal values, proteinuria. HCT is dropping; albumin is dropping and UPC is not elevating correspondingly; suspect GI disease may be playing concurrent role in disease processes. Pet will not eat a renal diet. Pet cannot tolerate ACE-I-makes him not eat; Telmisartan caused hyperkalemia that only resolved after discontinuing it (there was hemolysis present and elevated platelets which may have contributed but it was checked multiple times on fasted sample); blood pressures have been consistently 160 mmHg systolic-pet is VERY worked up in hospital. Additional History: A fecal negative for ova and Giardia.

Current Medications: Welactin; have discontinued Benazepril and then Telmisartan; owner feeds what he will eat and changes foods often.
Lab Results: SDMA 24 ug/dL(0 – 14) H, CREA 1.6 mg/dL(0.5 - 1.5) H, BUN/UREA 54 mg/dL (9 – 31) H, Potassium 6.6 mmol/L (4.0 - 5.4) H, TP 4.9 g/dL (5.5 - 7.5) L, ALB 2.2 g/dL(2.7 - 3.9) L, GLOB 2.7 g/dL (2.4 - 4.0) . IDEXX CBC: RBC 5.17 M/uL (5.39 - 8.70) L, HGB 12.5 g/dL (13.4 - 20.7) L, HCT 39.0 % (38.3 - 56.5), MCV 75 fL (59 – 76), MCHC 32.1 g/dL (32.6 - 39.2) L, ABS RET 72 K/uL (10 – 110), PLATELETS 548 K/uL (143 – 448) H, ABS MONOS 1226 /uL (130 – 1150) H, U PRO/CREA 2.1. Attached separately.
Date of Previous IntraPet Ultrasound: 2-24-2021.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

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. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is normal in size (0.99 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal in size (3.02 cm in length); with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis.

The right kidney is normal in size (3.42 cm in length); with a normal shape, smooth peripheral margins and normal internal architecture. There is mild to moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Trace pyelectasia is present (0.11 cm in the longitudinal plane). There is no evidence of infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is normal size (0.34 cm at cranial pole) (0.37 cm at caudal pole) (1.17 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 (0.40 cm at cranial pole) (0.23 cm at caudal pole) (1.37 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 (0.67 cm 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. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed.

The gall bladder lumen is moderately distended. The wall is thin and smooth. An excessive amount of aggregated echogenic partially dependent sludge is observed within the lumen. The cystic and common bile ducts are normal.

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 small intestinal lumen is not dilated. 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 or overt infiltrative disease is noted.

Pancreas

The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely hyperechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Free Abdomen

There is no evidence of free fluid. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Bilateral nephropathy with dystrophic mineralization and trace right pyelectasia
- Gallbladder sludge, non-mucocele
- Age-related pancreatic remodeling/fibrosis. Concurrent low-grade inflammation may be present, particularly if the patient exhibits discomfort on abdominal palpation.

Secondary Findings

- There is no evidence of gastric wall thickening or retroperitonitis in today's study.

* An obvious cause for the patients' clinical signs is not identified in the study. Considerations include microscopic gastrointestinal disease (i.e., food allergy, intestinal dysbiosis, inflammatory bowel disease), low-grade pancreatitis, underlying metabolic issue, other.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Consider the following diagnostics to further investigate the hypoalbuminemia:

    1. Pre- and postprandial serum bile acids

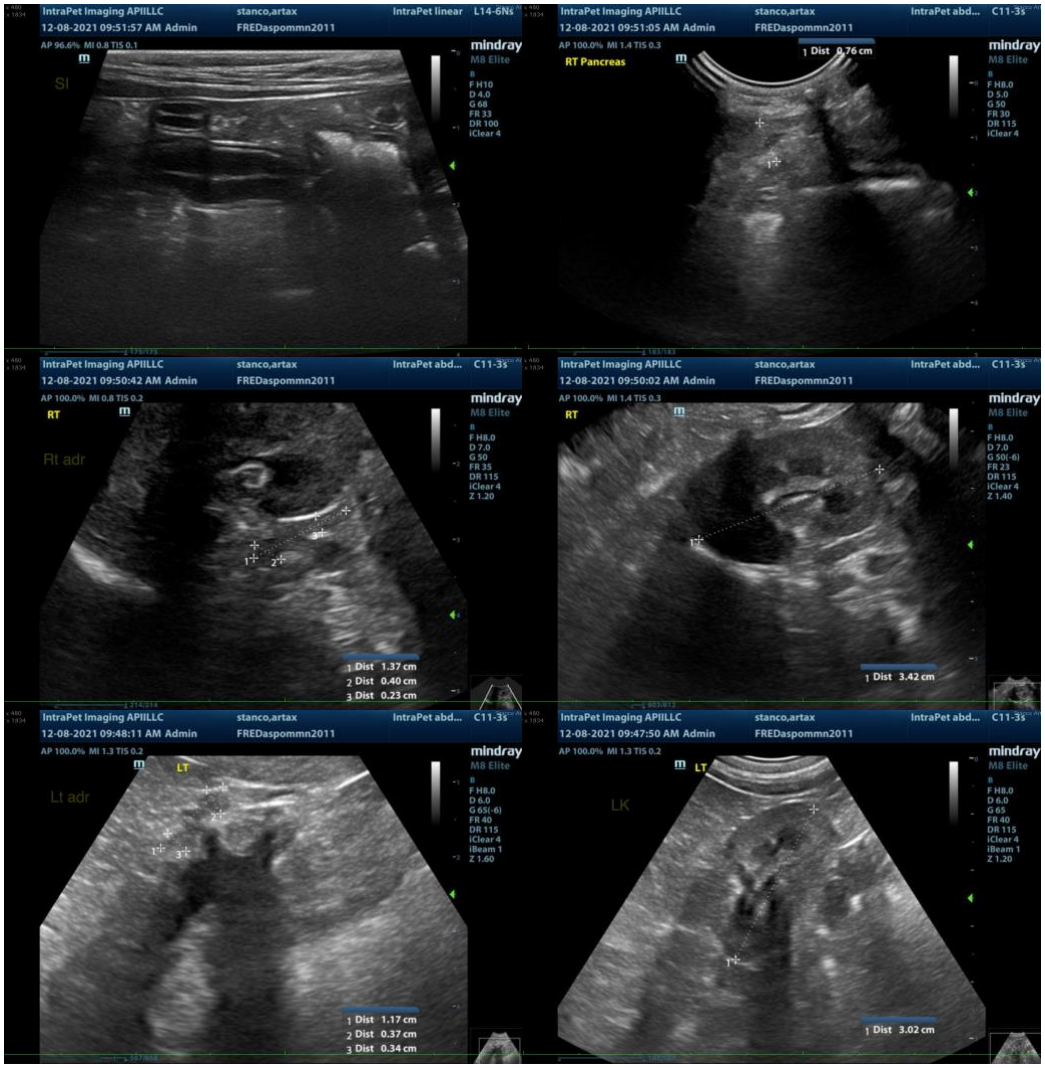
    2. GI panel, including serum cobalamin, folate, TLI and PLI to assess for maldigestion/malabsorption

    3. A resting cortisol level to screen for hypoadrenocorticism. If resting cortisol level is < 2.0 mcg/dL, an ACTH stimulation test is recommended

    4. Depending upon the results of the above diagnostics, endoscopic or surgical gastrointestinal biopsies may be necessary to get a definitive diagnosis.

- Also consider a urine culture and sensitivity to assess for occult pyelonephritis (given the history of protein-losing nephropathy).

Per the history, the patient has exhibited intolerance to both ace-inhibitors and angiotensin receptor blockers. Unfortunately, there isn't a good substitute for these medications. Therefore, continuation of other supportive measures (i.e., omega 3 fatty acids, a prescription renal diet, if patient will tolerate) is recommended. A nutritional consult with the University of Tennessee can be considered if the patient will not eat prescription food (https://vetmed.tennessee.edu/vmc/smallanimalhospital/small-animal-nutrition/). An antithrombotic agent (i.e., clopidogrel) is also recommended.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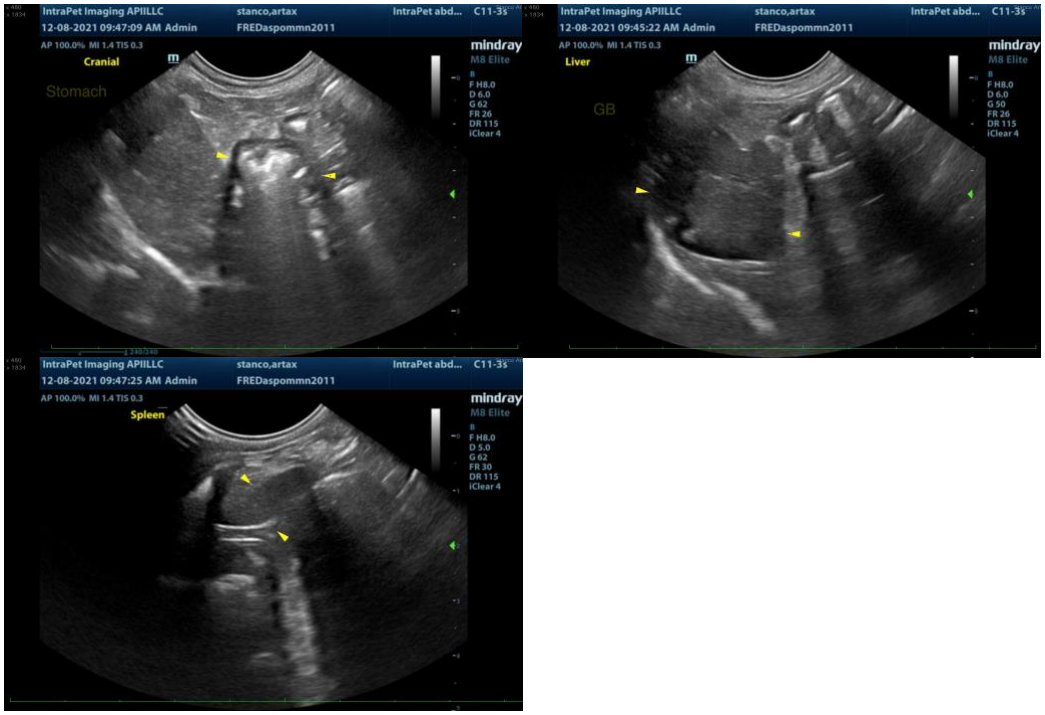

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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 DACVIM (Small Animal Internal Medicine)
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