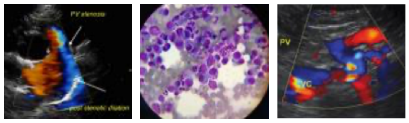
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
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DATE

4.3.23

PATIENT

Patch Vickery

SPECIES

Canine

BREED

Terrier Mix

SEX

Neutered Male

AGE

6/1/2010

WEIGHT

20.6 lbs

INTERPRETED BY

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

HOSPITAL NAME

Essex Middle River VC

REFERRING VET

Dr. Zulty

INVOICE

12634

PRESENTING CLINICAL SIGNS

One month ago, lab-work reveals proteinuria (UPC 4.50), SDMA16, Cr 1.3, BUN 43, Alt 188, Alkphos 162. No clinical abnormalities.

Current Medications: 2.5mg Enalapril bid - started 3/1/23
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Andi Parkinson, BS, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly enlarged. The wall is mildly distended distended with urine. The wall is appropriate thickness for the level of repletion. At least one cystic calculi is observed (0.60 cm), along with gravity-dependent mineralized sand. The region of the trigone is normal.

The left kidney is normal in size (4.67 cm in length) with a normal shape and smooth peripheral contours. The cortex is diffusely thickened and isoechoic relative to the spleen. There is moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. Mild pyelectasia is present (0.23 cm in the longitudinal plane). There is no evidence of infarcts or hydroureter.

The right kidney is normal in size (4.16 cm in length) with a relatively normal shape. The cortex is diffusely thickened and hyperechoic relative to the spleen. There is poor corticomedullary distinction. Small, hypoechoic mineralized foci rare visualized. Mild to moderate pyelectasia is present (0.29 cm in the longitudinal plane). There is no evidence of hydroureter.

Adrenal Glands

The left adrenal gland is mildly enlarged (0.67 cm at cranial pole) (0.77 cm at caudal pole) (2.17 cm in length) with a normal shape and 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 mildly enlarged (1.33 cm at cranial pole) (0.93 cm at caudal pole) (2.36 cm in length) with a slightly irregular shape. The parenchyma subtly heterogenous with some loss of glandular detail. No distinct focal lesions are observed. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.89 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 prominent in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion.

The gall bladder lumen is moderately distended. The wall is normal in thickness. One-to-two small, polypoid-like lesions are arising from the luminal surface. A small to moderate amount of aggregated echogenic debris is observed within the lumen (some of which is adhered and some of which is partially dependent). The cystic and common bile ducts are normal/not seen.

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 in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

Pancreas

The left limb is mildly enlarged with slightly irregular peripheral contours. The parenchyma is mildly hypoechoic relative to surrounding omental fat. The pancreatic duct is not overtly dilated. The mesentery effacing the serosal surface is mildly hyperechoic.

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

- Bilateral chronic nephropathy with nonobstructive nephrocalcinosis. The mild pyelectasia may be secondary to age-related remodeling, pyelonephritis, PU/PD (if applicable) or some combination thereof.
- Cystic calculus with urinary bladder sand

Secondary Findings

- Mild bilateral adrenomegaly
- Nonspecific diffuse hepatopathy. Differentials include regenerative nodular hyperplasia, vacuolar hepatopathy, inflammatory disease, hepatotoxicosis (i.e., copper), fibrosis, other hepatopathy.
- Gall bladder debris - non-mucocele
- The pancreatic changes are suggestive of mild chronic active pancreatitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

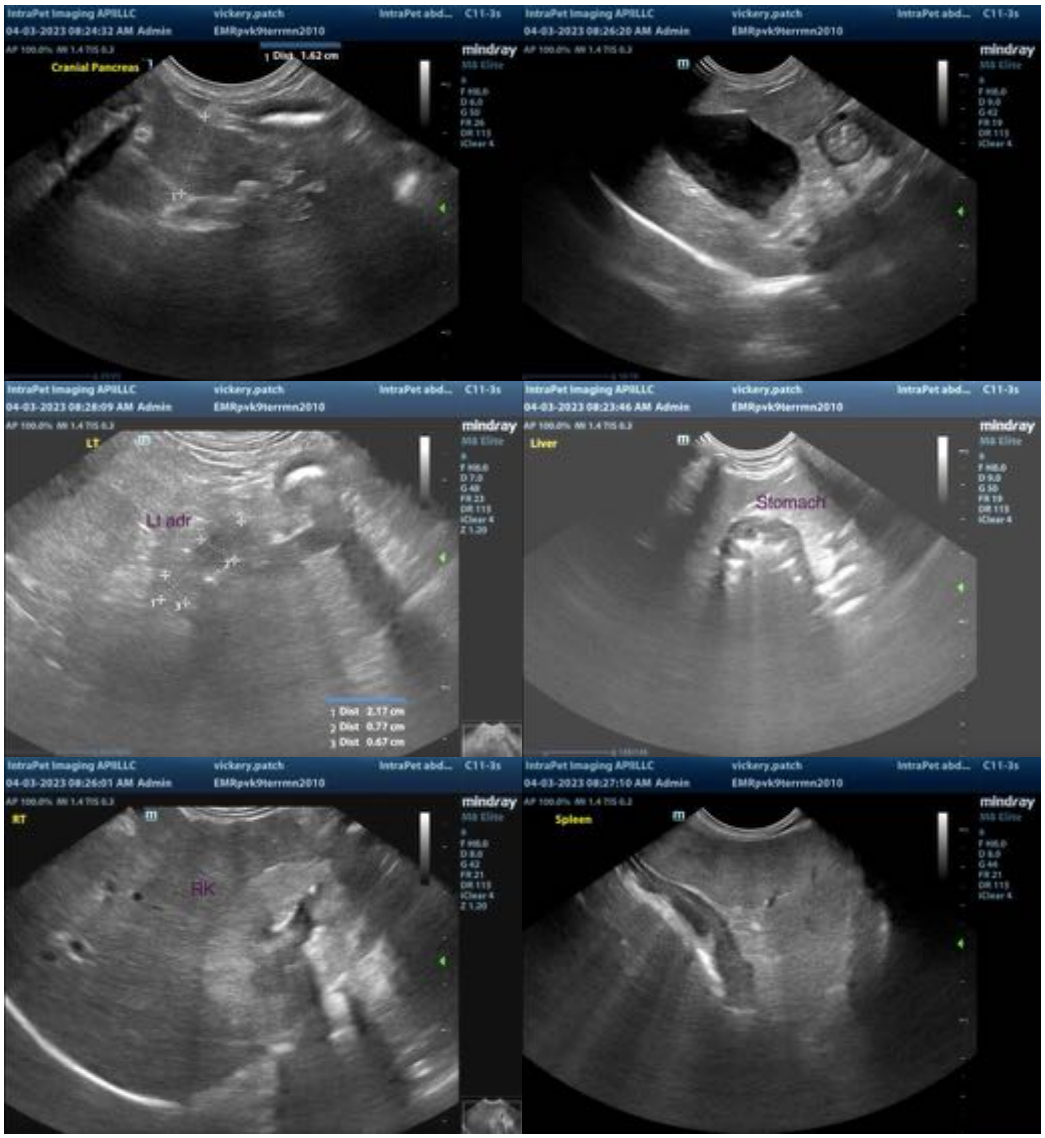
- Given the patient's clinical history, a urine culture and sensitivity is recommended (if not already performed).
- Also consider testing for infectious disease (i.e., heartworm, Leptospirosis, tick-borne), and the following treatments/therapeutics:

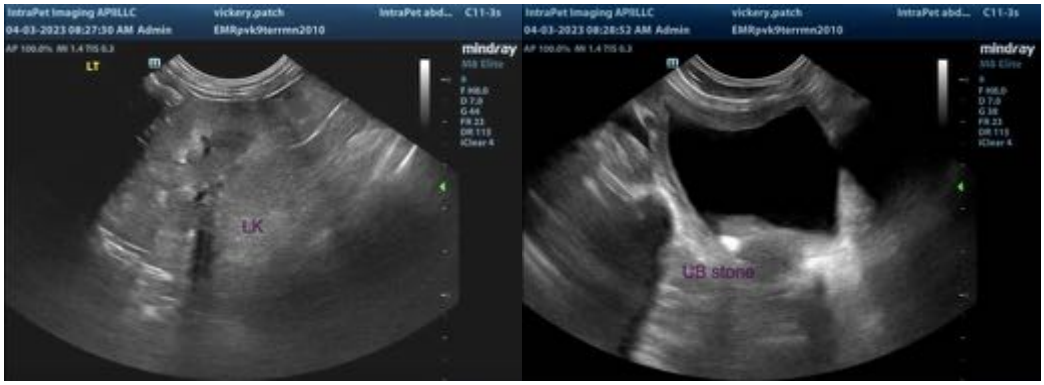
    1. Angiotensin II receptor blocker (e.g., telmisartan)
    2. Antithrombotic (e.g., clopidogrel at 2.5 mg/kg PO q 24 hours)
    3. Omega-3 fatty acids (65 mg/kg of DHA and EPA combined daily)
    4. Prescription renal diet
    5. Baseline blood pressure measurement with serial monitoring thereafter
    6. Routine monitoring of UPC and bloodwork (CBC, chemistry panel) to assess for progressive disease

- Regarding the adrenal changes, consider further testing for Cushing's disease (i.e., low-dose dexamethasone suppression test or ACTH stimulation test) if clinical signs are apparent.

- Serial monitoring (i.e., every 3-4 months) of the patient's liver values is recommended. If values continue to increase, a repeat abdomen ultrasound +/- a more advanced hepatic work-up (i.e., tissue sampling) may be warranted.

- A cystotomy with stone removal, analysis and culture is recommended. Alternatively, medical dissolution of the stones can be considered with a prescription renal diet and broad-spectrum antibiotic therapy. If there is no improvement in stone size after 4 weeks of therapy, a cystotomy should be reconsidered. If the stone size is reduced, continue therapy until complete dissolution has been achieved.





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.

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