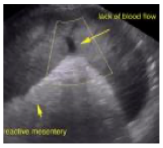
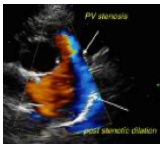
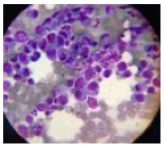
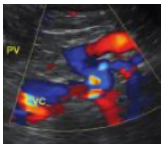
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Daisy Lowndes

SPECIES

Canine

BREED

Mixed

SEX

Intact Female

AGE

10 years

WEIGHT

17.2 lbs

INTERPRETED BY

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Westwood Regional VH

REFERRING VET

Dr. Giammanco

INVOICE

12039

DATE

1.12.23

PRESENTING CLINICAL SIGNS

History: Patient presents for Lyme nephritis - kidney staging and explore. Current treatments: In-hosp on IVFs, had fresh frozen plasma transfusion 1/11/23 last night, Doxycycline 10mgs/kg BID, ondansetron 0.5mgs/kg BID; Famotadine 1mg/kg BID.

Abnormal PE/Chem/CBC/UA Results: Azotemia (BUN 101, creat. 4.3, Phos. > 18), anemia (HCT 25.9, RBC 3.73), hypoalbuminemia 1.9. UP:C= 12.1 - PLN.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The wall is normal in thickness. No cystic calculi are observed. At the cystourethral junction, a small, irregular, finger-like bleb of tissue (0.36 x 0.16 cm) is arising from the ventral wall. The remaining mucosal surface is smooth. The region of the trigone and visible portion of the proximal urethra are normal.

The left kidney is normal in size (4.60 cm in length) with a normal shape and smooth peripheral contours. The cortex is mildly thickened and isoechoic and isoechoic relative to the spleen. There is mild loss of corticomedullary distinction. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (4.69 cm in length) with a normal shape and architecture with smooth peripheral margins. The cortex is mildly thickened and there is mild to moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size (0.42 cm at cranial pole) (0.45 cm at caudal pole) (1.57 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 in normal size (0.50 cm at cranial pole) (0.33 cm at caudal pole) (1.22 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.

Spleen

The spleen is normal in size (1.15 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 subjectively enlarged with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and 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 to moderate amount of aggregated, echogenic, partially dependent debris/sludge is observed within the lumen. 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 thickness is normal 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 region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

There is no evidence of free fluid. A 1.45 cm medial iliac lymph node is visualized. The node is normal in shape and echogenicity.

Other

The left ovary is subjectively normal in size (1.25 x 0.71 cm). A 0.58 cm anechoic structure, likely a follicle, is visualized within the parenchyma. No obvious pathology is observed.

The uterine body is visible/prominent (1.06 cm in diameter). The lumen is mostly empty. No obvious abnormalities are seen.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The bilateral renal changes are most consistent with chronic interstitial nephrosis/nephritis. This finding, in conjunction with the patient's clinical history, is most consistent with Lyme nephropathy.

Secondary Findings

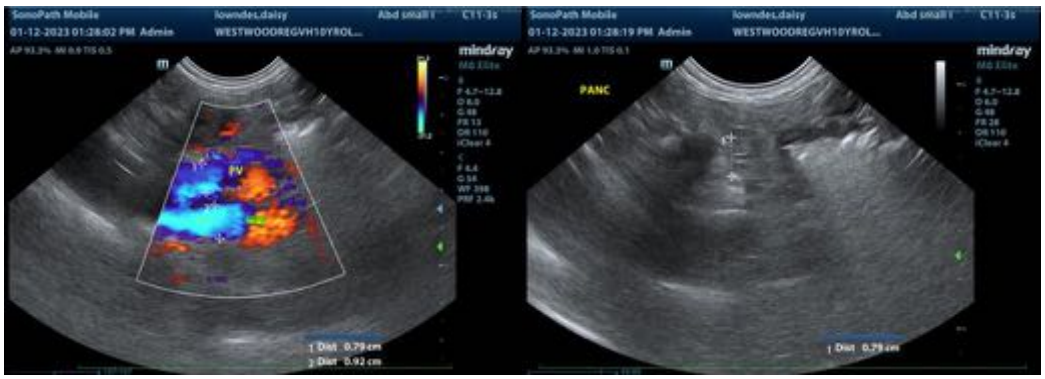
- Suspected benign diffuse hepatopathy. Vacuolar hepatopathy (i.e., endocrine, idiopathic) is the top differential.
- Gall bladder sludge, non-mucocele
- The finger-like projection at the cystourethral junction may represent an inflammatory polyp, emerging tumor, other.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Based on the patient's clinical history consider the following:

    1. Urine culture and sensitivity
    2. Baseline blood pressure measurement
    3. Thoracic radiographs to assess cardiopulmonary status
    4. IV fluid diuresis and oncotic support (as needed)
    5. Initiation of an angiotensin receptor blocker +/- an ace inhibitor.
    6. Anti-thrombotic agent (i.e., clopidogrel)
    7. Omega 3 fatty acids
    8. Prescription renal diet (if the patient will tolerate it)

- Regarding the urinary bladder lesion at the cystourethral junction, consider a urine BRAF test to assess for lower urinary tract neoplasia. Also consider a repeat ultrasound in 3-4 weeks to assess for progression.



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, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
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