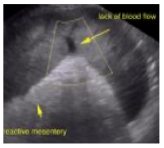
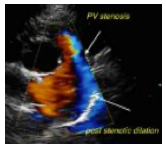
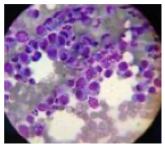
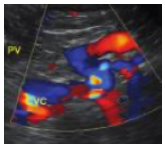
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Lil Miss Wise

SPECIES
Canine

BREED
Mini Schnauzer

SEX
Spayed Female

AGE
2 years

WEIGHT
15 lbs

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

IMAGING PERFORMED BY
Saum Hadi

HOSPITAL NAME
Bethany Family PC

REFERRING VET
Saum Hadi

INVOICE
12236

DATE
2.16.23

PRESENTING CLINICAL SIGNS

History: P presented in late January for a routine wellness exam. Lab work revealed a mild azotemia. Early morning USG 1.015. renal values were rechecked ~ 10 days later and the azotemia was persistent. Urine culture negative. After talking to O, they mentioned that P has been PU/PD and mildly hyporexic. Weight stable. Potassium 4.7 MEQ/L (WNL). No sodium testing so no Na/K ratio. 4DX negative. No toxin exposure per O. Initial BW and most recent UA attached.

Abnormal PE/Chem/CBC/UA Results: 1/28: Creatinine 1.9 mg/dL, BUN 40 mg/dL, SDMA 18.8 ug/dL 2/9: Creatinine 1.9 mg/dL, BUN 38 mg/dL, SDMA 19.9 ug/dL, USG 1.015, UPC 1.3. Urine culture negative

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is 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 left kidney is normal in size (3.96 cm in length) with a normal shape and smooth peripheral contours. The cortex is mildly thickened and isoechoic relative to the spleen. Pinpoint hyperechoic foci are observed within the cortex. There is mild to moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. Trace pyelectasia is present. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (4.17 cm in length) with a normal shape and smooth peripheral contours. The cortex is mildly thickened and isoechoic relative to the spleen. Pinpoint hyperechoic foci are observed within the cortex. There is mild to moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. Trace pyelectasia is present. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size (0.35 cm at cranial pole) (0.37 cm at caudal pole) 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 (0.66 cm at cranial pole) (0.42 cm at caudal pole) 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 (1.57 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 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. Luminal contents are anechoic. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is minimally fluid-distended. The gastric wall is 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. 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

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

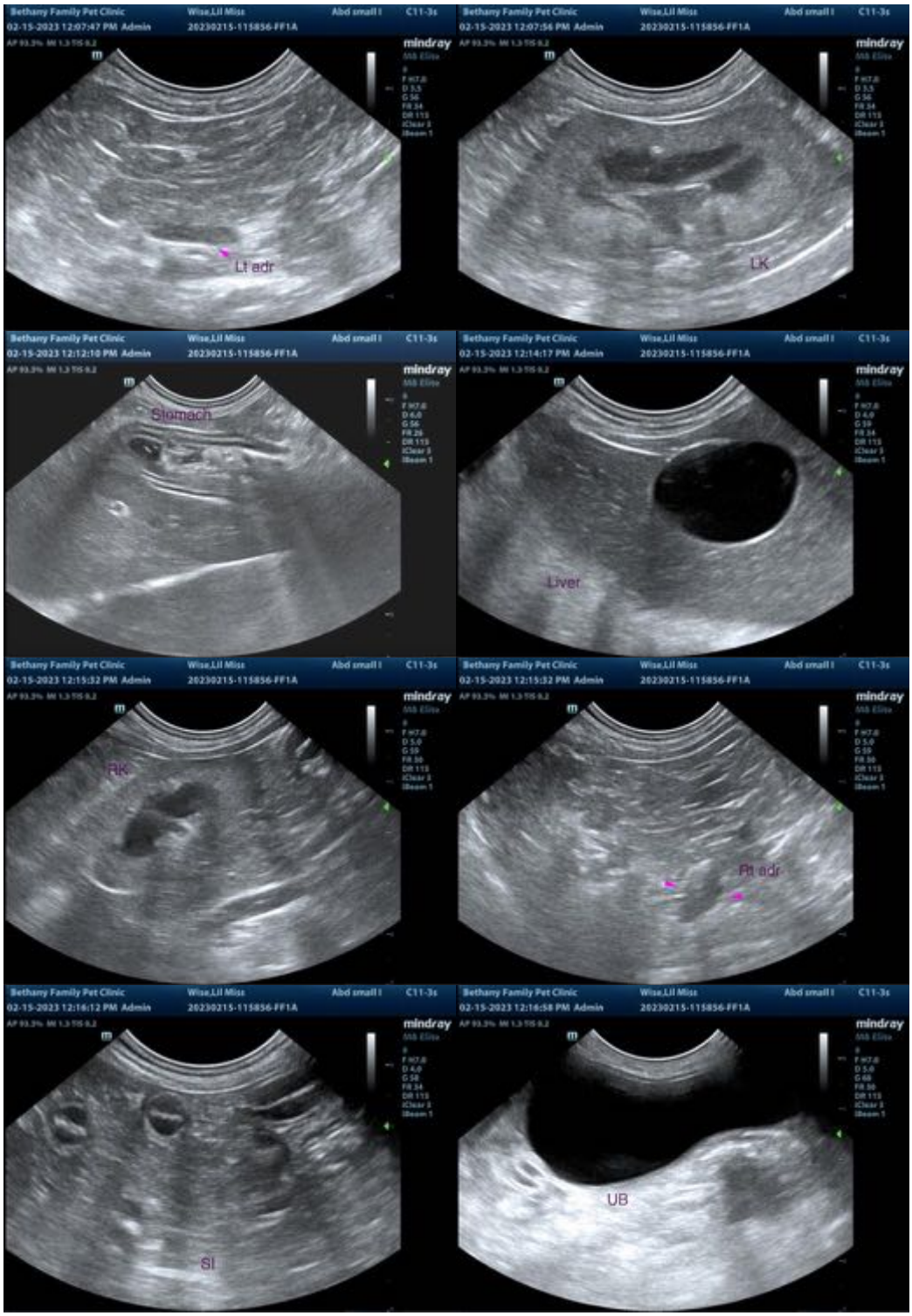
- The bilateral renal changes are consistent with chronic interstitial nephrosis/nephritis with nonobstructive nephrolithiasis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the patient's clinical history and sonographic renal changes, consider the following:

    1. Resting cortisol level to screen for hypoadrenocorticism (although this differential is considered less likely in light of the patient's renal changes)
    2. Leptospirosis testing (i.e., blood and urine PCR, serology)
    3. Testing for tick-borne disease
    4. Baseline blood pressure measurement
    5. Transition to a prescription renal diet
    6. Given the proteinuria, consider the following:

        a. Angiotensin II receptor blocker (e.g., telmisartan) +/- ACE inhibitor
        b. Antithrombotic (e.g., clopidogrel at 2.5 mg/kg PO q 24 hours)
        c. Omega-3 fatty acids (65 mg/kg of DHA and EPA combined daily)
        d. Routine monitoring of UPC and bloodwork (CBC, chemistry panel) to assess for progressive disease



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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