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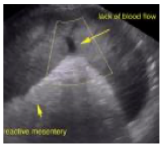
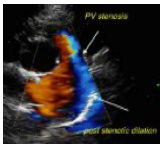
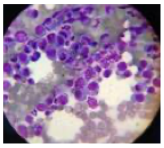
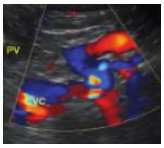
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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PATIENT
Cooper Berrak

SPECIES
Canine

BREED
Poodle Mix

SEX
Neutered Male

AGE
8 years

WEIGHT
12.3 Lbs

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

IMAGING PERFORMED BY
Kelly Vazquez

HOSPITAL NAME
Westwood Regional VHv

REFERRING VET
Dr. Hartwick

INVOICE
11612

DATE
9.8.22

PRESENTING CLINICAL SIGNS

History: Assess urinary tract/kidneys/source of hematuria. Presented on 7/21/22 lame, not eating, painful, lethargic. PE: joint pain, Lyme +, Lyme C 6= 152. UA: hematuria/glucose 1+, casts. BUN 50, creat. 2.3 - treated with SQ fluids, omeprazole, Doxy x 28 days - markedly improved. 7/28: BP= 208/129, 167/68. Chem: BUN 57, creat. 1.8, albumin 1.8, Alk.Phos. 407. CBC: WNL. Added Benazapril 2.5 PO SID. On 9/1: BP still high (stressed), gained 1 lb, Supechem: BUN 47, creat. 1.4, albumin 2.5, CBC: WNL. Current meds: Benazapril 2.5 mgs PO SID and Omeprazole. R/O Lyme nephritis, PLN, reason for persistent hematuria. Hypoalbuminemia is improving.

Abnormal PE/Chem/CBC/UA Results: 8/30/22: USG: 1.036, pH 6.5, protein 4+, RBC 11-20, UPC=2.3 but hematuric. 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 prostate is normal in size (0.58 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The **left kidney** is normal size (4.39 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The **right kidney** is normal size (4.09 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The **left adrenal gland** is normal size (0.43 cm at cranial pole) (0.38 cm at caudal pole) (1.61 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 (0.86 cm at cranial pole) (0.45 cm at caudal pole) (1.79 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 (0.77 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** is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The **gastric lumen** is distended with ingesta. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is segmentally dilated with chyme. 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

A portion of the **pancreas** is obscured by the gastric distention. In the visualized portions, no obvious pathology is observed.

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

- Minor bilateral age-related renal changes

*An obvious cause for the patient's hematuria is not identified in this study. Considerations include benign essential hematuria, distal ureteroliths, occult infection, other.

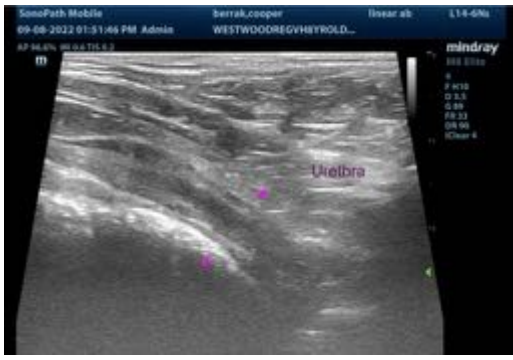
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A thorough evaluation of the external genitalia is recommended.

Consider radiographs of the caudal abdomen/pelvis to evaluate the distal urethra for stones.

Consider empirical treatment with broad-spectrum antibiotics to see if the hematuria resolves. If the hematuria is still present 5-7 days after initiating therapy, antibiotics should be discontinued.

Regarding the protein-losing nephropathy, consider initiation of omega 3 fatty acids +/- an antithrombotic agent (i.e., clopidogrel), along with serial monitoring of the patient's renal values, UPC and blood pressure. If the ACE inhibitor alone does not result in improvement of the proteinuria, consider adding in an angiotensin receptor blocker. Also consider transitioning to a prescription renal diet if the patient will tolerate it.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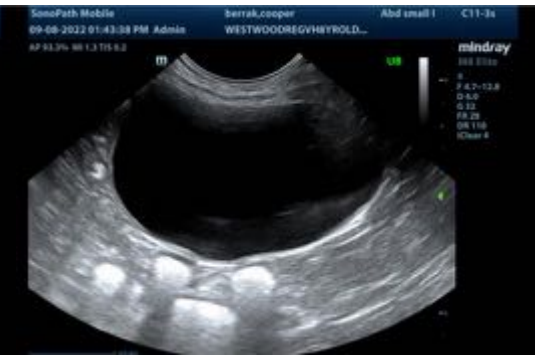
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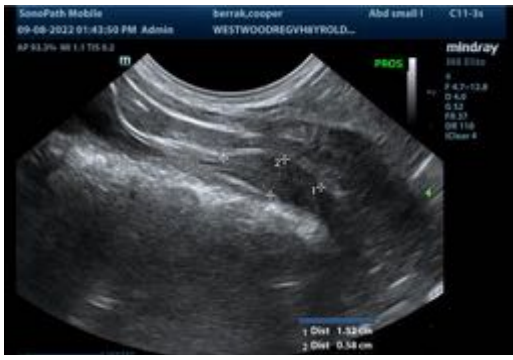
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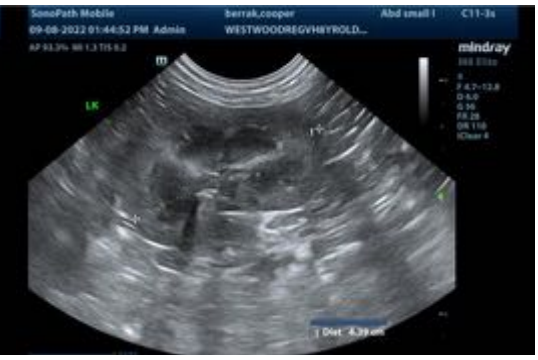
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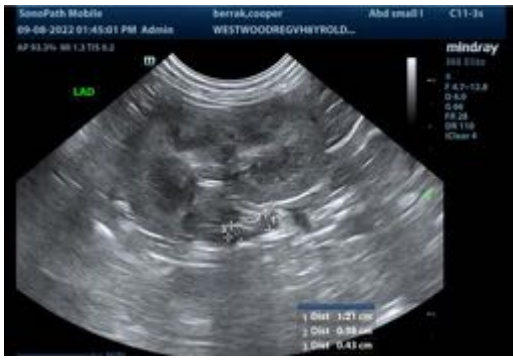
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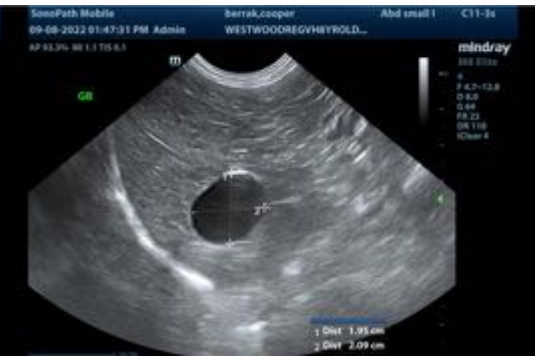
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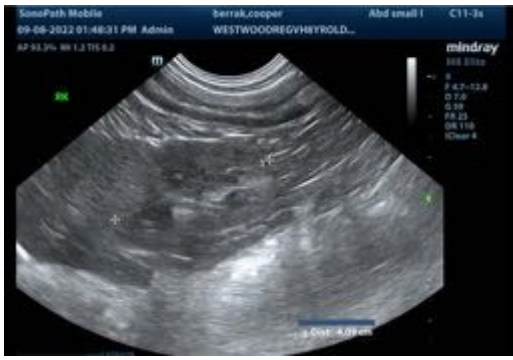
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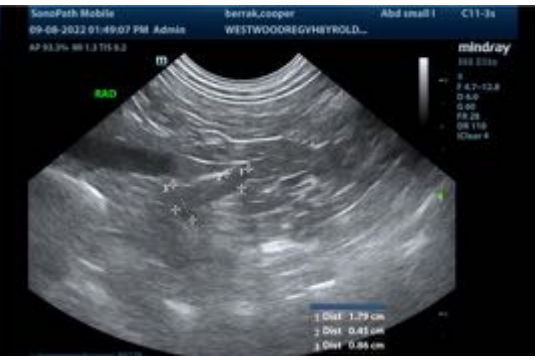
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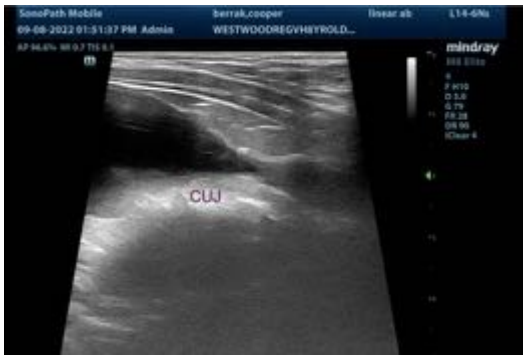

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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