



PATIENT

Cooper Munera

SPECIES

Canine

BREED

Shih Tzu

SEX

Intact Male

AGE

2 Years

WEIGHT

9.2 Pounds

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Englewood Vet Center

REFERRING VET

Dr. Ezik

INVOICE

36299

DATE

3/18/22

PRESENTING CLINICAL SIGNS

Patient presents with history of chronically elevated renal values since 6 months of age. Initial ultrasound performed on 6/18/21. Follow-up on kidneys, has mild hematuria.

Abnormal PE/Chem/CBC/UA Results: BUN 54, creat. 1.6, SDMA 28. U/A (free catch) blood 3+, pH 6, USG 1.034.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. Slight amount of bladder sand noted, a grouping of which measured 0.70 cm, non-obstructive. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal.

The **prostate** was uniformly enlarged with lobar swelling appeared to impinge upon the urethra and mildly deviate the descending colon. The prostatic tissue was hyperechoic containing focal areas of decreased echogenicity. These changes are suggestive of either chronic inflammatory episodes, benign cystic pathology or both. Underlying neoplasia cannot be completely ruled-out but is lower on the differential list. This presentation is most consistent with benign prostatic hyperplasia with possible active prostatitis. Neutering or off-label Finasteride (Propecia) (0.1-0.5 mg/kg Sid) treatment is indicated +/- FNA or prostatic wash cytology and culture. The prostate measured 2.5 cm in width.

The **right kidney** was subnormal in size at 2.34 cm with irregular contour. Moderate interstitial nephrosis pattern. The **left kidney** measured 3.44 cm. Slight mineralization noted in the right kidney. Blood flow to the kidneys appeared to be adequate on power doppler assessment.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 0.92 cm x 0.28 cm at the caudal pole and 0.38 cm at the cranial pole. The left adrenal gland measured 1.01 cm x 0.29 cm at the caudal pole and 0.24 cm at the cranial pole.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

Liver

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

Portal vein/vena cava ratio was 1:1.



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Gastrointestinal

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Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

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Pancreas

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The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

SEX

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Free Abdomen

The testicles were imaged and found to be uniform, no evident pathology.

ULTRASONOGRAPHIC FINDINGS

AGE

2 Years

- BPH prostate
- Subnormal right renal size with irregular contour
- Chronic interstitial nephrosis pattern with some level of primary renal dysplasia suspected
- Slight mineralization and sand in the bladder

WEIGHT

9.2 Pounds

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Screening for Addison's warranted as well, given the azotemia, despite adequately concentrated urine. Hematuria may be deriving from sand passage from the kidneys to the bladder, or bladder through the urethra, or from the prostate. Neutering would be appropriate in this patient. However, 72-hour IV fluid support to correct azotemia would be warranted prior to neutering. Prognosis long-term is guarded depending upon renal ability to maintain metabolic need. Blood pressure measurements and urine cultures indicated if any inflammatory sediment is present in the urine.

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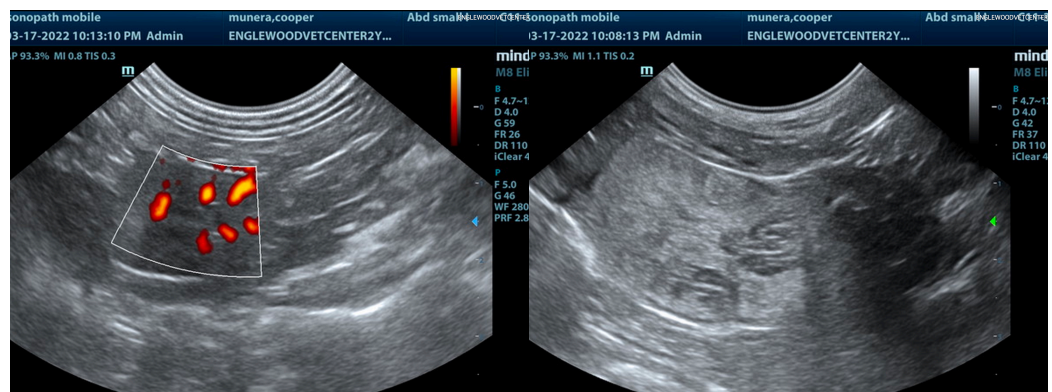
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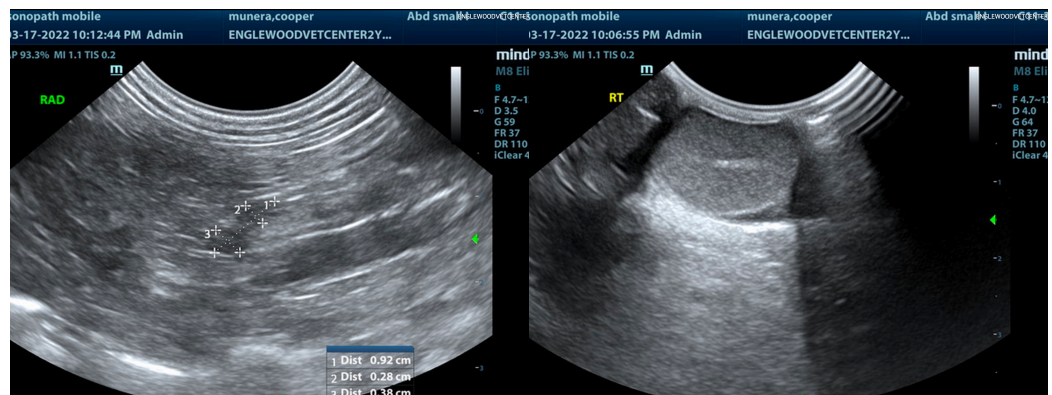
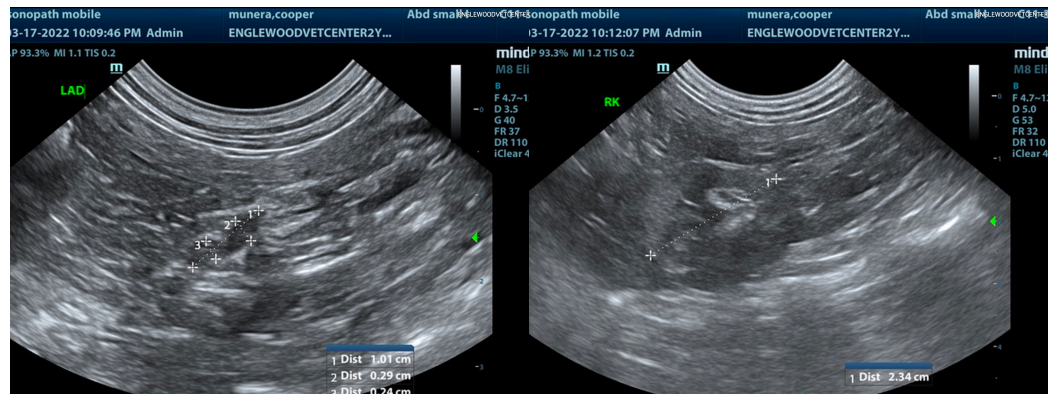
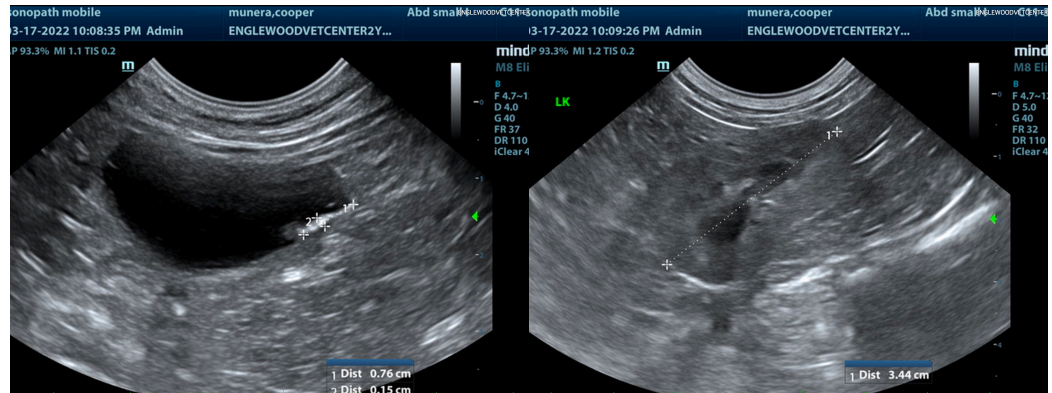
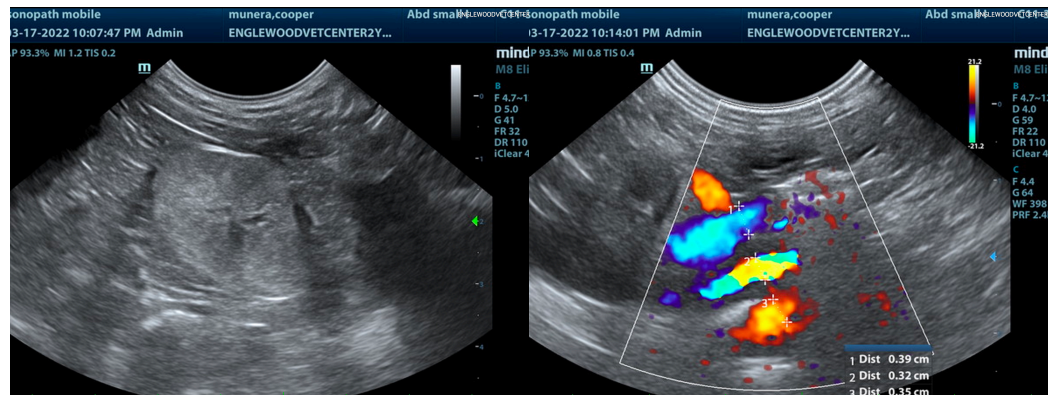
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com

info@SonoPath.com

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