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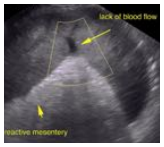

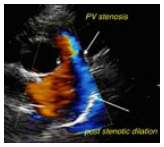

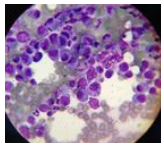
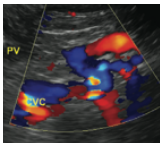

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Sierra Walton

SPECIES

Spayed female

BREED

Great Pyrenees Mix

SEX

Spayed female

AGE

13 years

WEIGHT

92.9 lbs

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Fritz

HOSPITAL NAME

Waterbury VH

REFERRING VET

Dr. Fritz

INVOICE

47809

DATE

6/19/23

PRESENTING CLINICAL SIGNS

History: Since Jan 2023 p has had recurrent UTIs. Generally responsive to amoxicillin. Longest course was 3 weeks long. On ultrasound 10 days ago p had an irregular and subjectively thickened cranial/rostral bladder wall. Free catch UA - rods present. Cultured urine on free catch due to bladder wall irregularity - proteus mirabilis sensitive to most (including amoxicillin). Pollakiuria, hematuria, and stranguria much improved while on antibiotics. O also cleaning around vulva with antibacterial wipes (slightly recessed vulva) and p on proin 50mg SID. Urinary incontinence has been controlled. Current medications: Amoxicillin 500mg 2 cap PO BID, Proin 50 mg-1 tab SID, Carprofen 100 mg- 1 tab BID, Gabapentin 300 mg BID, Thyrotabs 0.6 mg BID, Adequan 1.9 mls SQ once weekly, D-Mannose supplement daily, Welactin, Dasuquin, Probiotics, Chlorhexidine wipes,
Abnormal PE/Chem/CBC/UA Results: PE: weight loss (3lbs in the last month), multifocal DJD, periodontal disease, TPR wnl CBC: mild thrombocytosis Chem: ALT 159 U/L, ALP 299 U/L 4dx - negative UA - hematuria, pyuria, rods, USG 1.034, pH 7.0, protein 500 mg/dL Urine culture - proteus mirabilis Three view chest x-rays - sliding hiatal hernia (incidental), all else wnl

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** presented a relatively uniform thickening of the cranioventral and craniodorsal mucosae with micropolypoid mucosal changes without involvement of the submucosae. The urine presented some echogenicity consistent with suspended debris. No overt calculi were present at this time. The pelvic urethra was dilated with subjectively poor tone.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right kidney measured 8.0 cm. The left kidney measured 5.9 cm.

Adrenal Glands

The left adrenal gland was mildly enlarged at the caudal pole and measured 1.5 cm and the cranial pole measured 0.7 cm. The right adrenal gland measured visualized obliquely and measured approximately 0.8 cm.

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 was noted.

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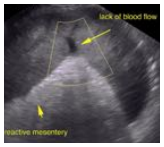

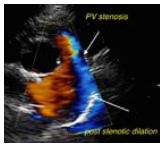

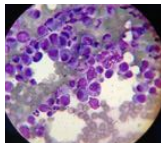
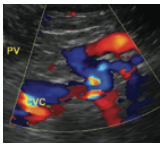

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Liver

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some age-related parenchymal remodeling was noted but likely not clinically significant at this time. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder presented some dependent debris with essentially normal contour. The cystic and common bile ducts were normal. No overt evidence of active inflammatory, infiltrative or regenerative pathology was noted but should be paired with current or past LE elevations regarding any clinical significance to this presentation. The hepatic lymph nodes were unremarkable.

Gastrointestinal

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.

Pancreas

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.

Free Abdomen

The iliac lymph nodes were unremarkable.

ULTRASONOGRAPHIC FINDINGS

Chronic cystitis bladder pattern with sand.

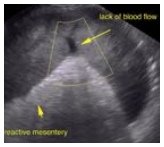
Prominent, irregular left adrenal gland.

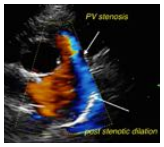
Age related renal and hepatic changes.

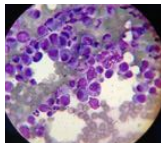
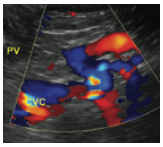
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There was no overt visceral cause of weight loss. Urine culture and sensitivity or cystotomy with normal and retrograde flush, sand analysis, bladder wall biopsy or resection of the caudal third of the bladder to remove chronic nidus formation. Proteus colonization of the urinary tract in this patient is likely owing to a chronic humid environment with recessed vulva and urine pooling all playing a role. Vulvoplasty may be appropriate in this patient. However, long term antibiotic use is likely necessary with potential dissolution diet or direct surgical intervention as described.

Canine Chronic UTI Protocol
I recommend **Enrofloxacin** (5-10 mg/kg SID PO) (In patients > 1 year of age) in late pm after urination to maximize urinary concentrations overnight. This assumes that culture supports this use. Repeat **culture** at 3-4 weeks and continue treatment at least 7-10 days post negative urinary sediment and





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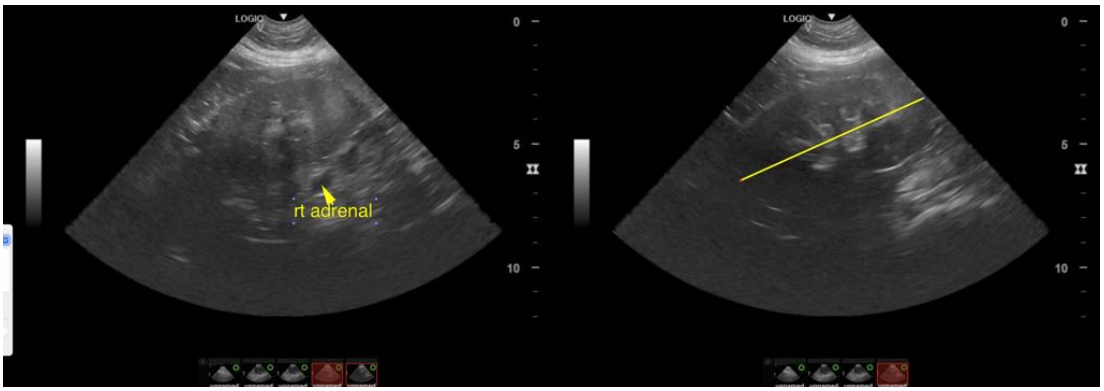
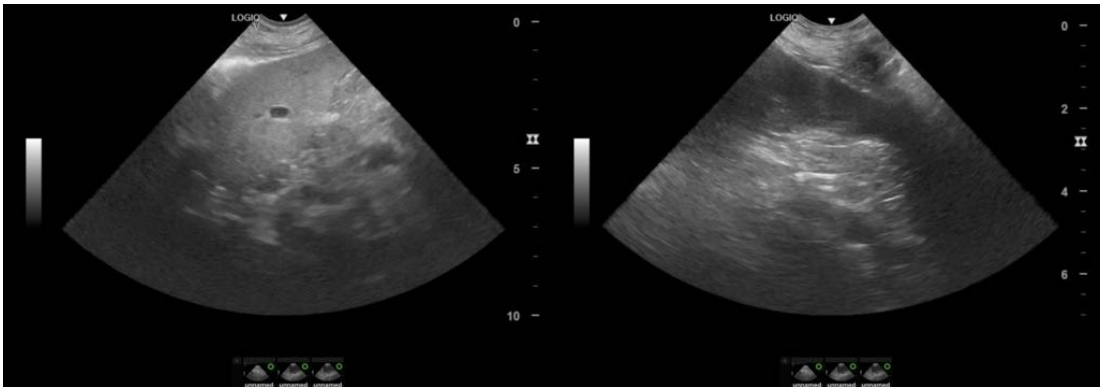
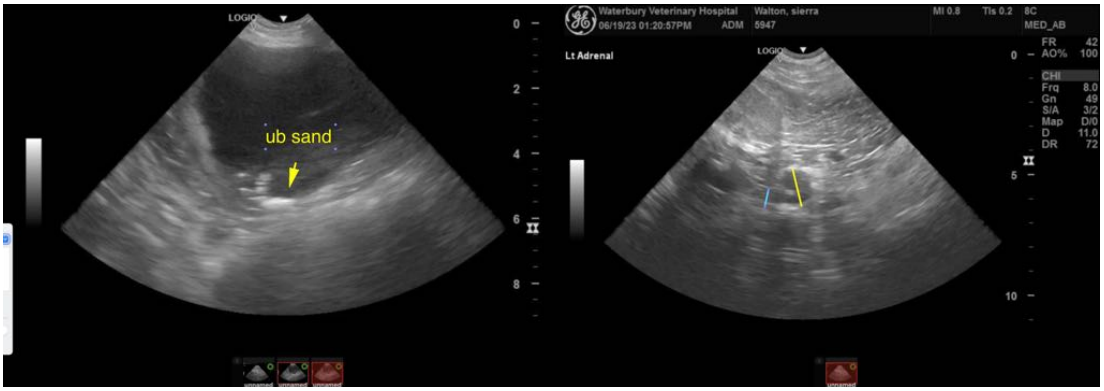
negative culture. *Note: Negative culture does not necessarily mean lack of UTI.* Other favorite antibiotics for chronic UTI include third generation Cefa (Ceftiafur or similar s.i.d. injectable) or Clavamox. If suspicion of occult urinary incontinence is present then **phenylpropanolamine (PPA)** (1-2 mg/kg BID) can be employed long term to enhance urethral tone.







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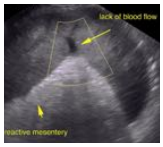
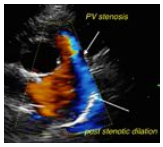
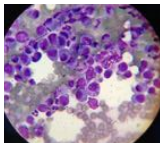
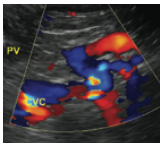

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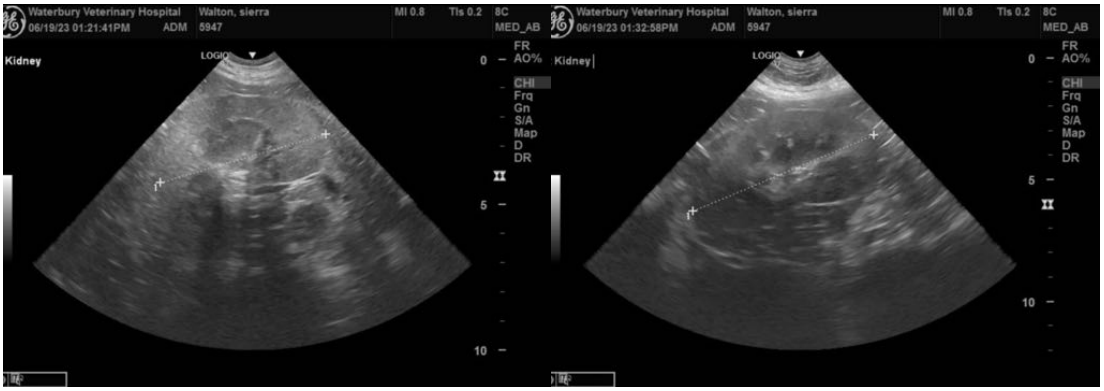

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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