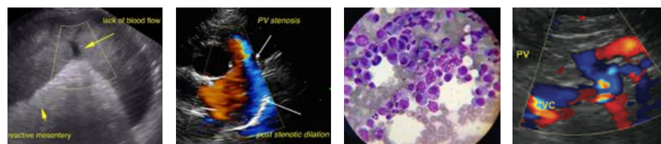
SonoPath
Clinical Sonography & Telecytology



EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Harley Stutz

SPECIES

Canine

BREED

American Indian Dog

SEX

Spayed Female

AGE

9 years

WEIGHT

106.7 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jessica Miller, RDMS

HOSPITAL NAME

Animal Care Center of Flanders

REFERRING VET

Dr. Hallihan

INVOICE

97914

DATE

3/29/22

PRESENTING CLINICAL SIGNS

History: Hematuria, urinating after squatting, urine has foul odor. No improvement after antibiotics. Finished Clavamox 375mg 1.5T BID x 14 days
Abnormal PE/Chem/CBC/UA Results: Urea Nitrogen 37, Creat 2.3 Renal profile pending UA: WBC 11-20, RBC 4-10, Bacteria Coccobacilli 26-50 SG: 1.022

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. Bladder sand accumulation was noted up to 1.5 cm with polypoid cystitis pattern and suspended debris. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. Moderate corticomedullary and pelvic calculi were noted. Pelvic calculus in the left kidney measured up to 2.0 cm. The right kidney measured 8.7 cm. The left kidney measured 7.22 cm.

Adrenal Glands

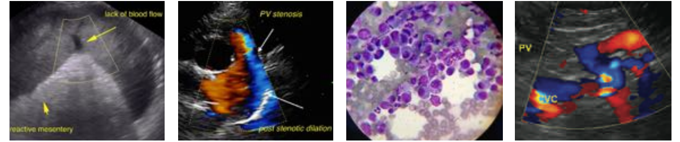
Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 3.85 x 0.62 cm at the caudal pole and 0.58 cm at the cranial pole. The right adrenal gland measured 2.83 x 0.74 cm at the caudal pole and 1.02 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 was 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.



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Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. The small intestine presented variable thickening. Reactive mesentery was noted associated with the small intestine.

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.

ULTRASONOGRAPHIC FINDINGS

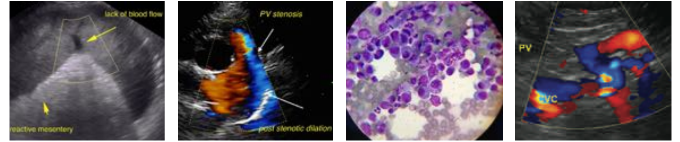
Irregular contour was noted in both kidneys with moderate cortical remodeling. Nephrolithiasis, with moderate degenerative changes.

Severe cystitis bladder pattern with bladder sand. There is a mild potential for underlying bladder wall neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

72 hour IV fluid protocol is warranted along with urine culture and sensitivity. 6-8 weeks of antibiotics are likely necessary if not longer. Pulse antibiotics may be necessary. I recommend assessment for recessed vulva or urine pooling that may be predisposing to recurrent UTI in this patient. However, the cystitis pattern is severe. Moderate degenerative renal changes to near end stage. Blood pressure measurements are recommended.

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 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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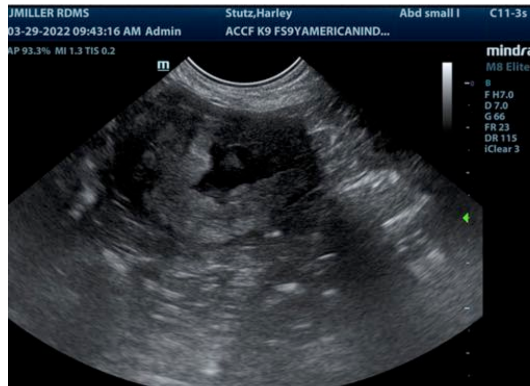

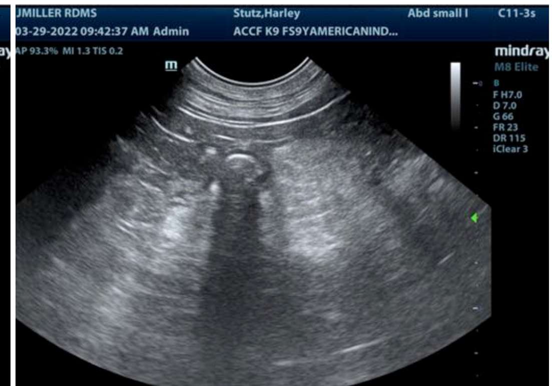

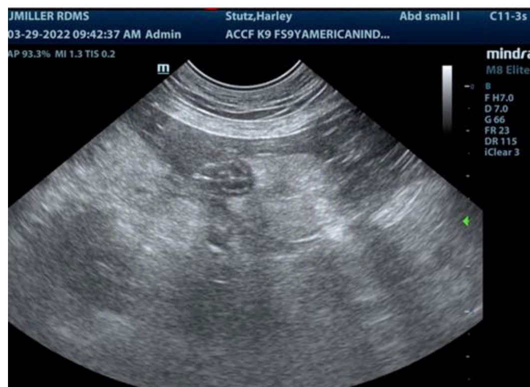

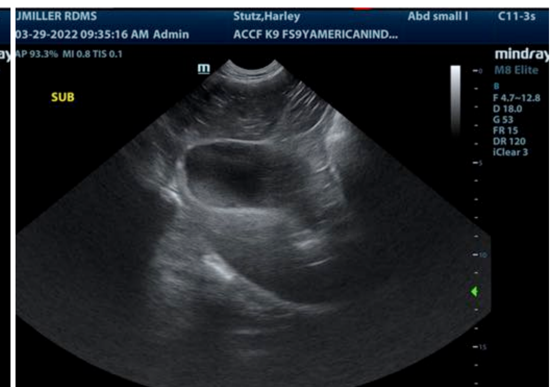

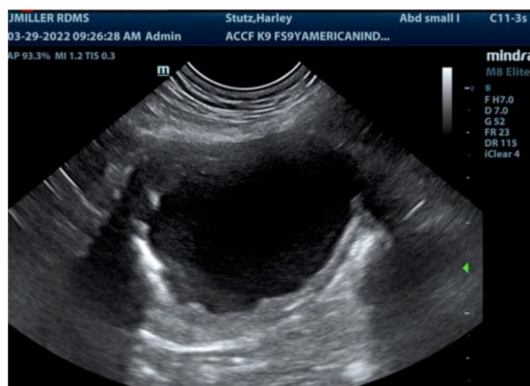

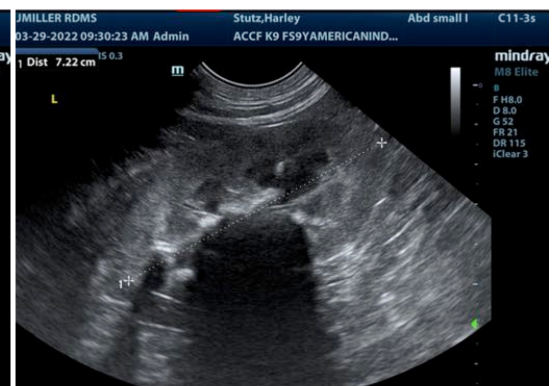

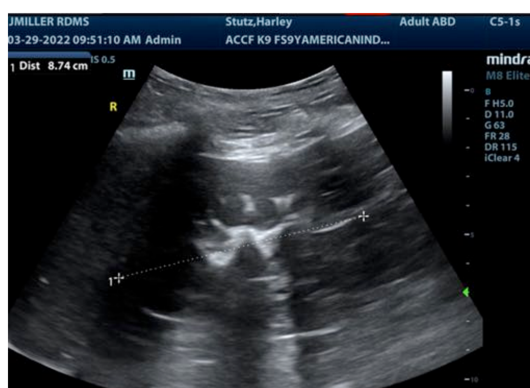

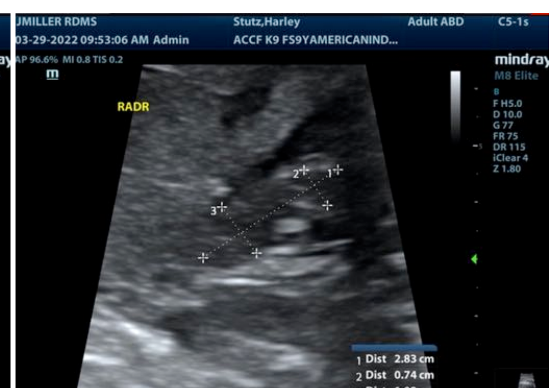

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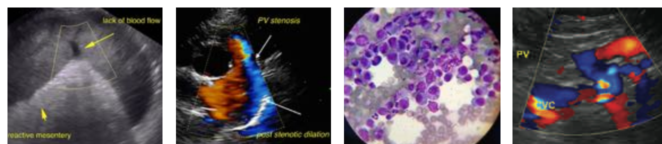

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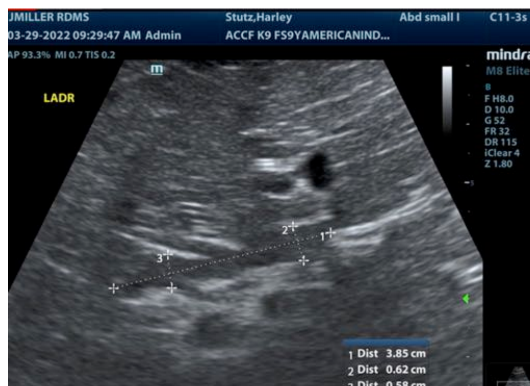

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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