



PATIENT

Raven Spano

SPECIES

Canine

BREED

German Shepherd

SEX

Spayed female

AGE

6 years

WEIGHT

82 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Leal

HOSPITAL NAME

Wellesley AH

REFERRING VET

Dr. Leal

INVOICE

42924

DATE

2/22/23

PRESENTING CLINICAL SIGNS

History: Presented for a workup of hematuria and proteinuria in Dec 2022. History of UTIs and elevated liver enzymes. Workup in March 2022 - Liver enzyme elevation resolved without diagnosis. UPC run in 3/2022 = 0.8. UA - 4+ protein but quiet sediment. AUS performed - no abnormalities noted (images not available for review). Hematuria noted grossly intermittently throughout past year. However urine collected via cysto revealed only 12 rbc/hpf on UA. Concern for source of bleeding in urethra - no masses noted on vaginal exam - vs further upstream. Trial treated for UTI with cefpodoxime. Repeat UPC February 2023 remains elevated at 1.0, quiet sediment. BP - systolic 170 (stressed but cooperative shepherd). Evaluation of abdomen for cause of proteinuria +/- hematuria. Abnormal PE/Chem/CBC/UA Results: 4/2022 AUS results: Abdominal ultrasound showed her urinary bladder, kidneys (6.4 cm diameter), right adrenal gland (2.1 x 0.6 cm) (left not seen), spleen (larger side of normal size, common in this breed, normal echotexture, no masses), stomach (0.29 - 0.48 cm walls), small intestines (0.17 - 0.31 cm walls, duodenum 0.35 cm), colon (stool present, 0.1 cm walls), liver, gall bladder (normal size, scant amount of dense bile), pancreas, abdominal lymph nodes and abdominal aorta were normal.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The pelvic urethra was imaged 3.0 cm beyond the cystourethral junction and appeared normal. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. 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. The left kidney measured 7.6 cm. The right kidney measured 7.7 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 2.5 x 0.6 cm. The right adrenal gland measured 2.8 x 1.12 cm at the cranial pole and 0.8 cm at the caudal pole. 0.5 cm.

Spleen

The **spleen** in this patient was mildly enlarged with uniform parenchyma and was folded upon itself cranially. This is a positional variant and is not pathological. There was no evidence of significant disease.



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Liver

The **liver** was largely normal; however, a trace amount of free fluid was noted between the liver lobes. The cause of the ascites was not clear. If the patient was sedated with Dexdomitor or similar this may be secondary, yet should be monitored especially if any weight loss is an issue. 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.

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.

ULTRASONOGRAPHIC FINDINGS

Structurally unremarkable abdomen with trace ascites between the liver lobes.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of UTI does not have any significant structural lower urinary tract issues present. Cystoscopy can be considered. Idiopathic hematuria is possible. If any weight loss is present or liver enzymes are occurring a recheck sonogram is recommended in a week especially because of the idiopathic ascites in this patient unless the patient was sedated for a long amount of time. If not already performed, an intravaginal exam is warranted to assess for any evidence of urine pooling or inflammatory pattern within the vaginal vault even though no external tumors were noted on physical exam.



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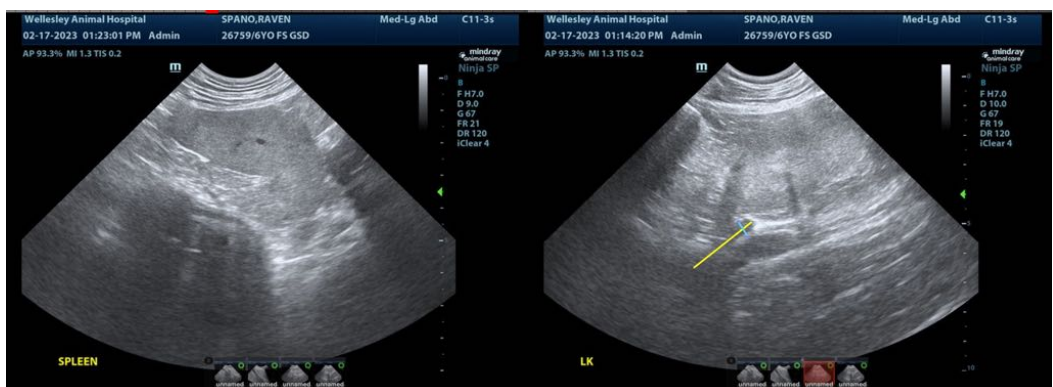
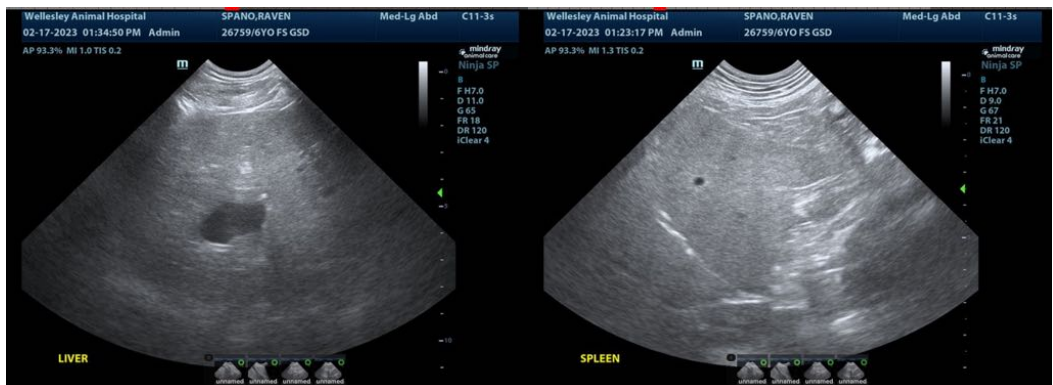
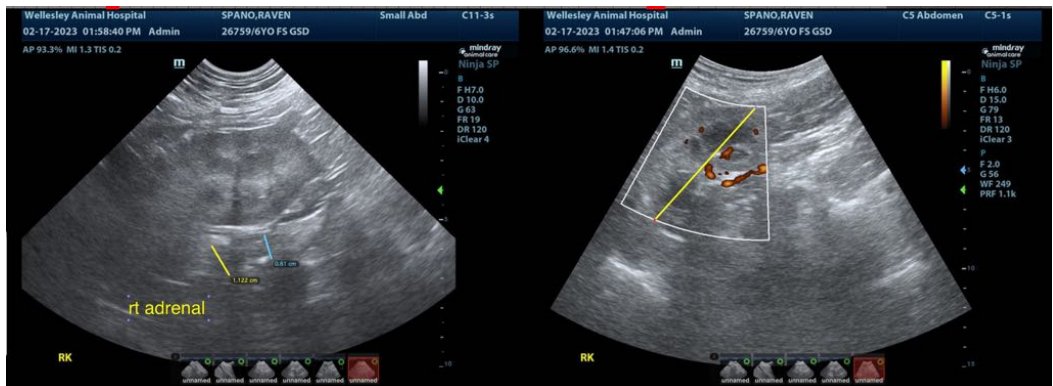
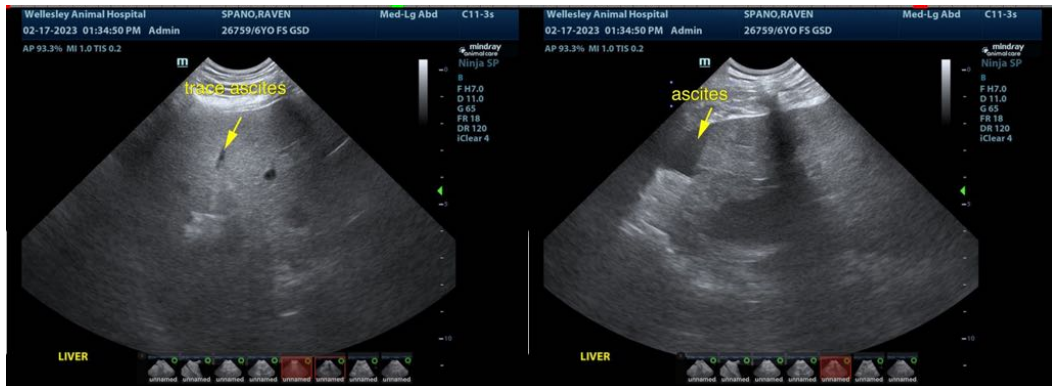
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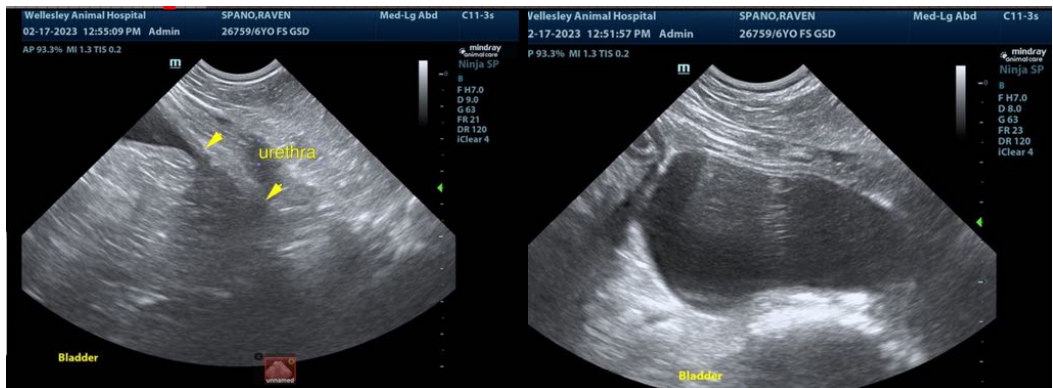
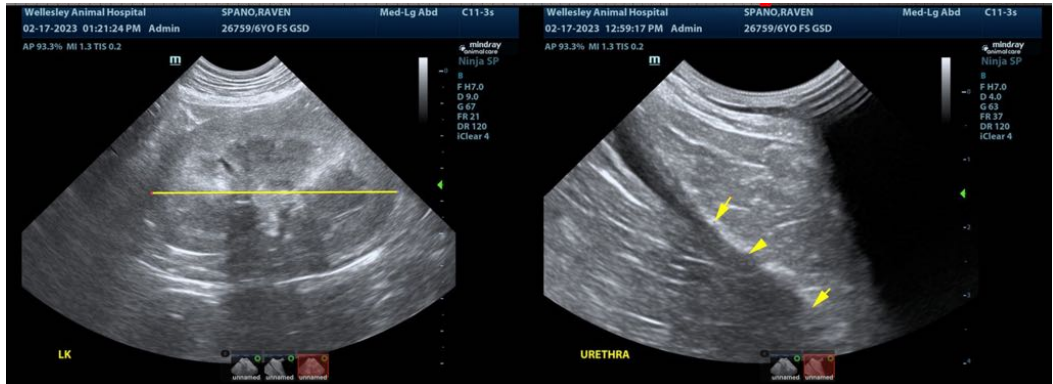
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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