



**PATIENT**

Daisy Shelton

**SPECIES**

Canine

**BREED**

German Shepherd

**SEX**

Spayed female

**AGE**

12 years

**WEIGHT**

78.8 lbs

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Brenner

**HOSPITAL NAME**

Riverside Animal Clinic

**REFERRING VET**

Dr. Brenner

**INVOICE**

32410

**DATE**

8/18/22

**PRESENTING CLINICAL SIGNS**

History: May 27, 2022 Urine accidents for 1 week. Treated with Clavamox 375mg 1 1/2 tablets orally twice daily for 1 week and DLM 500mg 2 tablets orally twice daily. Rechecked urinalysis after treatment Jun 7, 2022 infection appeared cleared. August 16, 2022 Urine accidents in house for 5 days. Abnormal PE/Chem/CBC/UA Results: May 27, 2022 Urinalysis USG 1.029, pH 8.0, protein 2+, Rods TNTC, cocci 1-10/hpf, WBC 1-5/hpf with intracellular rods, RBC TNTC, Stuvites 2-6/hpf, 2+ squamous epithelial cells, 1+ transitional cells. June 7, 2022 Urinalysis (29 hour old sample) USG 1.042, pH 6.0, protein trace, inactive sediment. August 15, 2022 Urinalysis USG 1.034, pH 8.5, Protein 2+, Cocci TNTC, WBC 2+, RBC 2+, occasional struvite crystals. August 18, 2022 mini profile normal: Creat, BUN, ALT, AST, ALKP. August 18, 2022 Focused Urinary Ultrasound.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The **urinary bladder** presented 1.5 cm of sand and suspended debris. The sand extended into the pelvic urethra as well. Minor apical wall thickening was noted. There was a minimal amount of urine present at the time of the sonogram.

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 right kidney measured 8.15 cm. The left kidney measured 5.91 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 1.65 x 0.51 cm at the cranial pole and 0.43 cm at the caudal pole. The right adrenal gland measured 2.36 x 0.5 cm at the cranial pole and 0.58 cm at the caudal pole.

**ULTRASONOGRAPHIC FINDINGS**

Urethral and bladder sand.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There was no evidence of neoplasia. I cannot completely rule it out as minor polypoid changes were noted in the bladder. Cystotomy, normal and retrograde bladder flushing is recommended after retrieving the sand for culture and sensitivity and biopsy of the apical bladder wall would all be appropriate. Cystoscopy could be considered for further definition. The sand in the pelvic urethra appeared to be luminal and not mural. There was no overt mural mineralization; however, early transitional cell carcinoma cannot be completely ruled out hence cystoscopy would be optimal to assess the deep pelvic urethral wall and lavage of the bladder during cystoscopy would be ideal as well as obtaining mucosal biopsies and tissue samples for culture. Cytospin of a free catch urine may allow for



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sand analysis as well as cytospin of the urine for cellular evaluation to assess for abnormal transitional cells.

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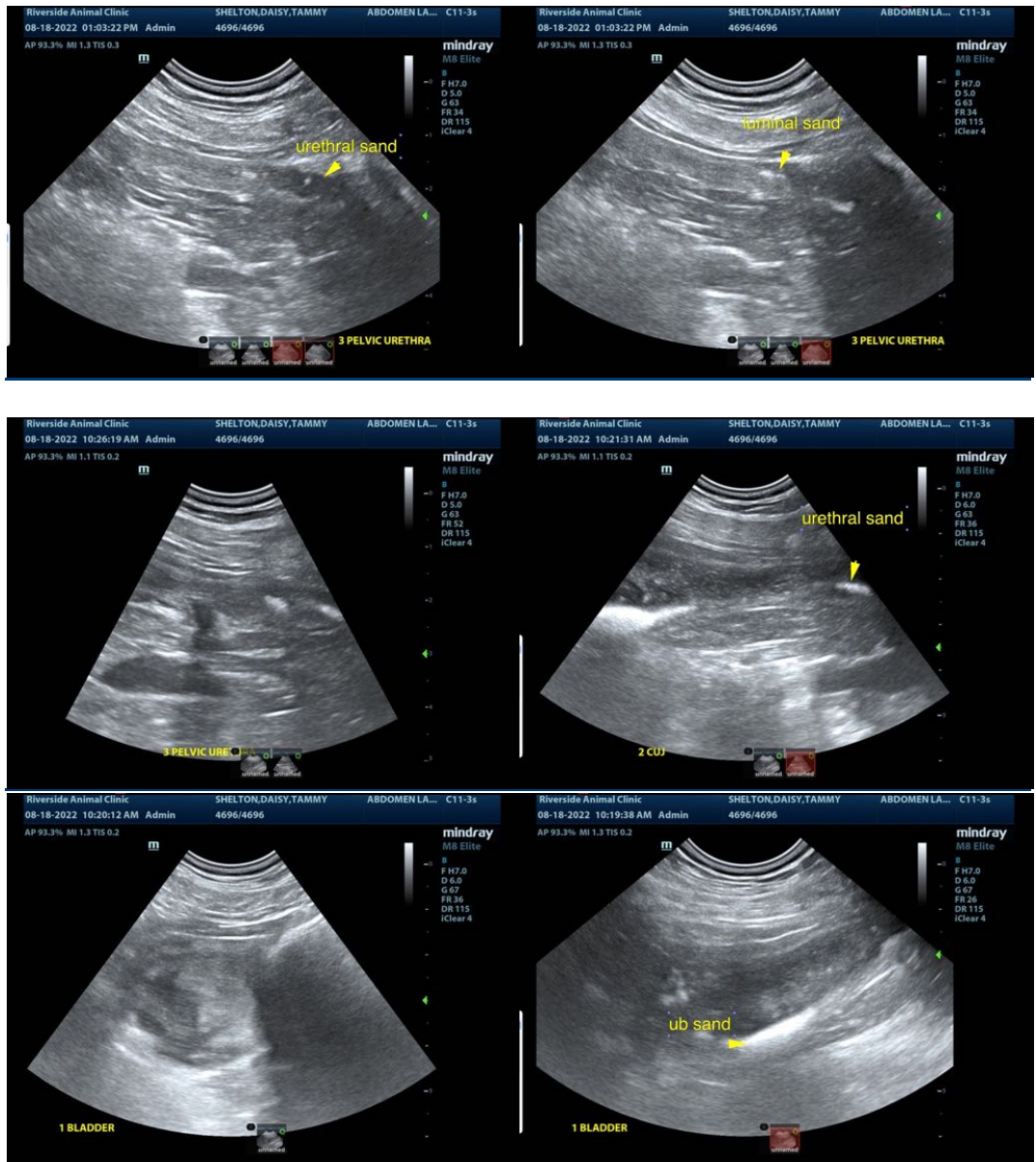
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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