



PATIENT

Trevor Nolden

SPECIES

Canine

BREED

Shorkie

SEX

Neutered Male

AGE

12 Years

WEIGHT

13.1 lbs

INTERPRETED BY

Eric Lindquist, DMV,
DABVP (CFM), Cert.
IVUSS

IMAGING PERFORMED BY

Dr. Ian Anderson

HOSPITAL NAME

Chester Animal Clinic

REFERRING VET

Dr. Ian Anderson

INVOICE

72372

DATE

12/5/25

PRESENTING CLINICAL SIGNS

Trevor, a 12-year 8-month male neutered Shorkie, presented for a 2-week history of frequent urination with a strong odor and urinary accidents in the house. The owner also reports a 3-week history of intermittent trembling and increased water consumption.

Abnormal PE/Chem/CBC/UA Results: PE: Corneal dystrophy, joint stiffness (DJD), severe dental plaque, Mild dehydration, BCS 4 CBC/Chem/UA: Azotemia (attached), proteinuria, isosthenuria, hypoalbuminemia

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 evidence of urethral pathology was present. This presentation is most consistent with chronic cystitis. Technically transitional cell carcinoma cannot be ruled out without histopathological review but is not overtly suspected based on this pattern. Cystocentesis and urine culture +/- pathological review of urine cytology would be warranted. No overt calculi were present at this time. The pelvic urethra was imaged 2.0 cm beyond the cystourethral junction.

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. Slight pyelectasia noted in both kidneys. Blood flow to the kidneys appeared to be adequate. Left kidney measured 5.0 cm. Right kidney measured 4.5 cm.

Adrenal Glands

The **adrenal glands** appeared at the upper limits of normal to prominent. No evidence of focal capsular expansion or invasion into the phrenic veins were noted. No overt suspicion of neoplasia was noted. This is considered likely a hyperplastic change associated with stress or adrenal endocrinopathy (PDH). If isosthenuria is persistently present and the patient morphologically suggests Cushing's disease then ACTH testing would be indicated. Left measured 1.04 cm at the cranial pole and 0.65 cm at the caudal pole. Right measured 0.92 cm at the cranial pole and 0.64 cm at the caudal 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



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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 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.

BREED

Shorkie

Pancreas

SEX

Neutered Male

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.

AGE

12 Years

ULTRASONOGRAPHIC FINDINGS

- Chronic cystitis.
- Minor degenerative renal changes.
- Prominent left adrenal gland, upper limits of normal right adrenal gland.

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13.1 lbs

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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Suspect acute on chronic renal insult such as Leptospirosis or toxin exposure. Concurrent UTI may be playing a role, given the bladder changes. However, suspect acute on chronic insult. Leptospirosis titers warranted. Renal biopsy would be ideal.

For an additional charge an internal medicine consult can be utilized through [Sonopath.com](http://sonopath.com). You can select the internal medicine drop down at <http://spa.sonopath.com/>.

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One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. <https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services>

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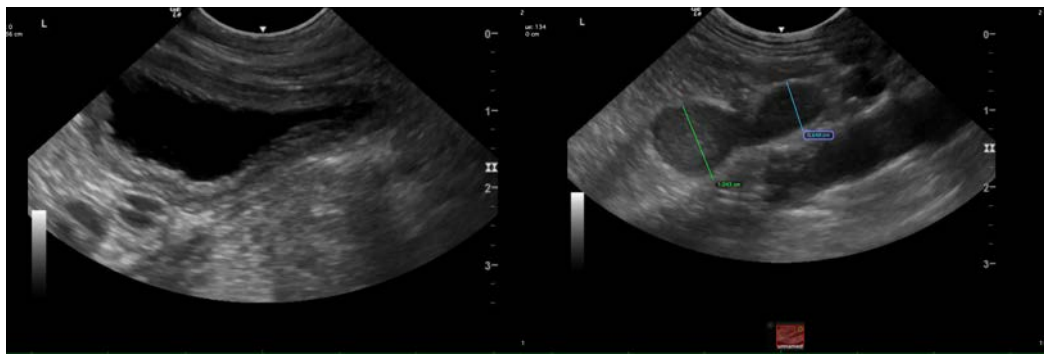
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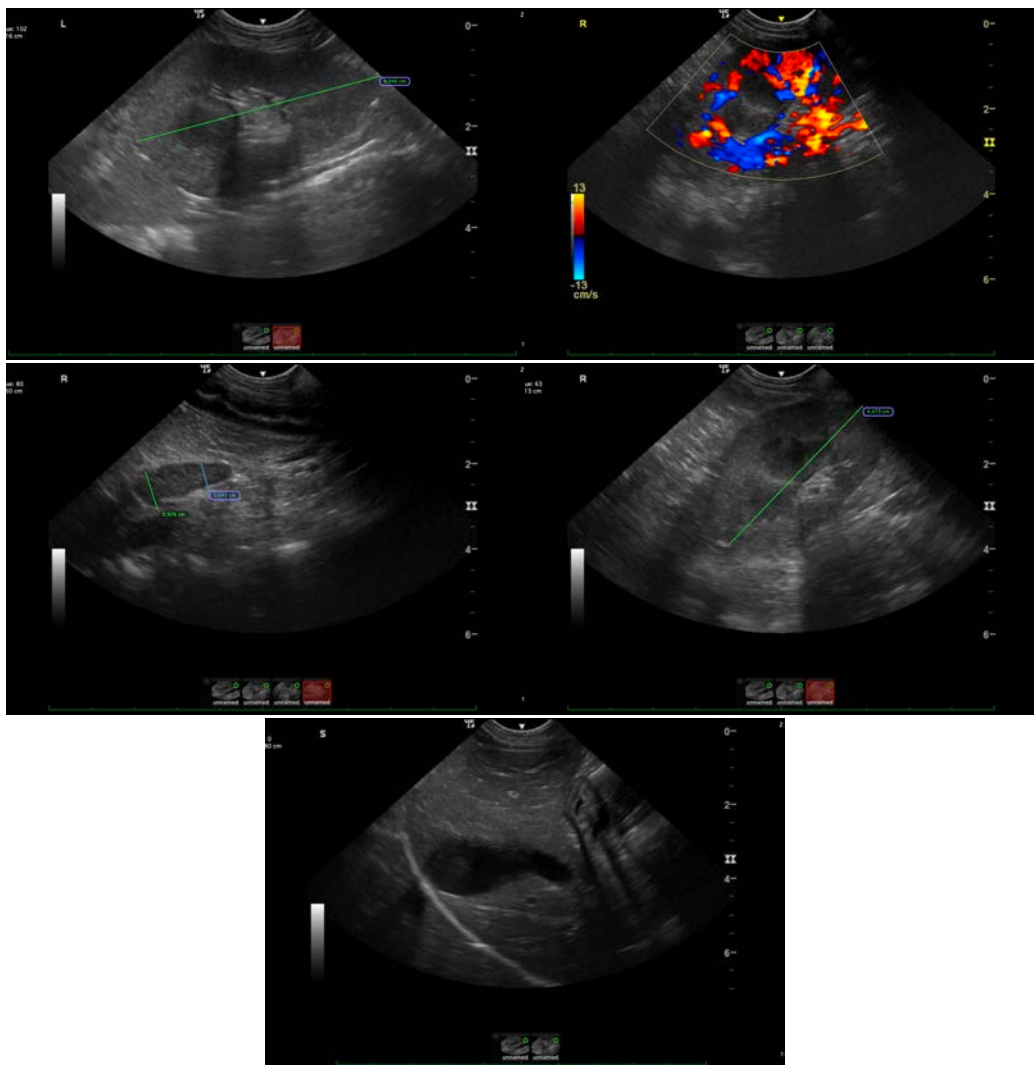
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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(CFM), Cert. IVUSS,
CEO, Owner, Founder -- SonoPath.com
info@SonoPath.com