

**PATIENT PRESENTING CLINICAL SIGNS**

Barisa Hornaday

History: pu/pd, blood in urine. Not clearing up with antibiotics and nsaid Current Medications amoxi/clav 500/125 BID

**SPECIES**

Canine

**BREED**

Kelpie

**SEX**

Spayed Female

**AGE**

11 Years

**WEIGHT**

45 Lbs.

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

Pawisitive Wellness VC

**REFERRING VET**

Dr. Hardy

**INVOICE**

14146

**DATE**

3/2/22

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder exhibited normal size and tone. Mild to variable thickening of the ventral apical and dorsal urinary bladder wall, extending into the area of the trigone was present, exhibiting homogeneous mural echogenicity without evidence of mural mineralization. Mild associated asymmetrical luminal surface contour with potential for possible mild emerging polypoid component. The ventral urinary bladder wall measured 0.62 cm in width. Anechoic urine was present primarily with very mild nondependent particulate sediment, which may indicate mild cellular or crystalline debris. No evidence of macrocalculi or overt masses. The cystourethral junction exhibited overtly normal wall, extending into the proximal urethra. The proximal urethra exhibited overtly normal structure and tone, to a depth of 5.0 cm, measuring 0.45 cm in width. No evidence of proximal urethral urine retention. Aortic trifurcation was normal.

Normal size and margination was present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pyelectasia was present in the left or right kidney. Pinpoint areas of medullary mineral present. The left kidney measured 6.1 cm in length. The right kidney measured 7.6 cm in length.

**Adrenal Glands**

Both adrenal glands were normal without evidence of hyperplasia or tumors. The left adrenal gland measured 0.44 cm at the cranial pole and 0.52 cm at the caudal pole. The right adrenal gland measured 0.46 cm at the caudal pole.

**Spleen**

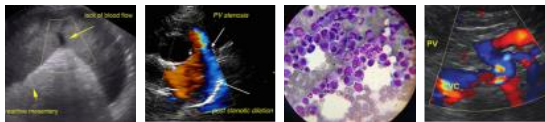
The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

**Liver**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non distended in size with mild, primarily dependent, non-organized gallbladder debris. The cystic duct and common bile ducts were normal without evidence of dilation.

**Gastrointestinal**



**PATIENT**

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

Barisa Hornaday

**SPECIES**

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

Canine

Normal visible colon wall layers were present with apparent formed feces in lumen.

**BREED**

***Pancreas***

Kelpie

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

**SEX**

Spayed Female

**ULTRASONOGRAPHIC FINDINGS**

**AGE**

**Primary Findings**

11 Years

- Mild, yet variably thickened ventral apical and dorsal urinary bladder walls, exhibiting mild asymmetrical luminal surface contour, overtly normal cystourethral junction and visible proximal urethra- cystitis (idiopathic, interstitial, possibly bacterial) suspected, potential for emerging neoplastic criteria (i.e., transitional cell carcinoma) cannot be excluded.
- Mild chronic renal changes exhibiting pinpoint medullary mineral- no signs of pyelonephritis

**WEIGHT**

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**Secondary Findings**

- Mild gallbladder debris (non-mucocele)- incidental

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**IMAGING PERFORMED BY**

Subjectively, the pattern of urinary bladder wall thickening is suggestive of cystitis as opposed to neoplastic criteria, although the potential for neoplastic criteria cannot be excluded.

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Cytospin cytology of free catch urine sample to assess for abnormal transitional cells and/or screening BRAF assay could be considered. A negative BRAF assay does not definitively rule out potential for neoplasia. Biopsies of the urinary bladder wall for histopathology +/- culture and sensitivity would be required for a definitive diagnosis.

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Continued empirical therapy for cystitis, which may include urinary diet, continued NSAID medication +/- Adequan or similar may prove beneficial. Recheck urine culture and sensitivity on sterile urine sample following completion of current antibiotics would be appropriate. If confirmed recurrent infection, a higher dose/shorter frequency antibiotic protocol, ideally, based on culture and sensitivity results (such as enrofloxacin 20 mg/kg PO SID for at least 3-5 days) may prove more effective.

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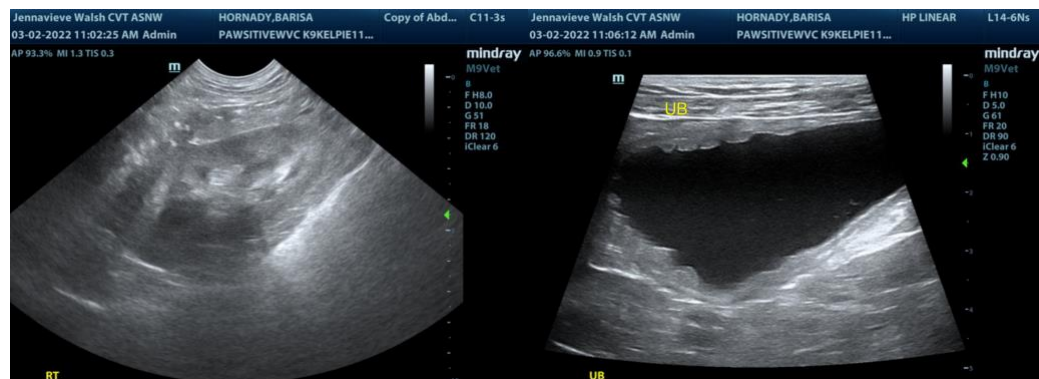
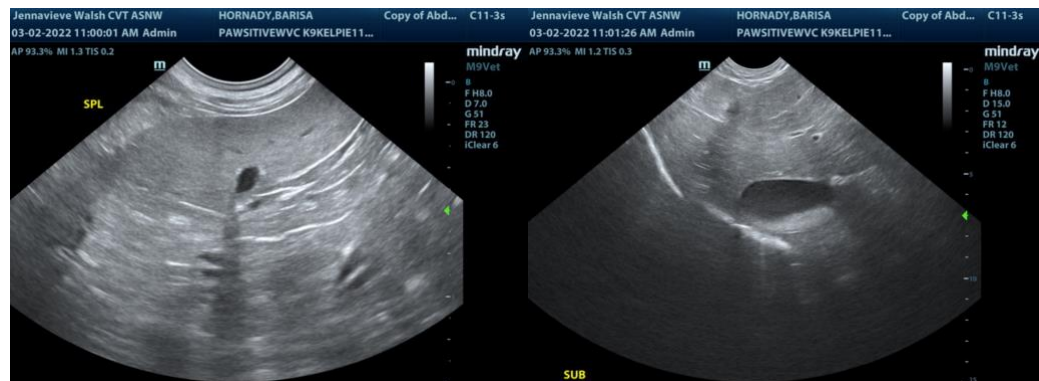
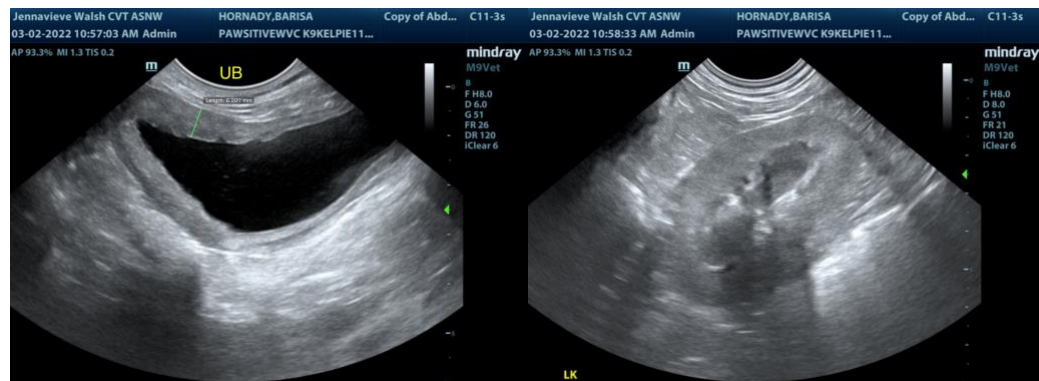
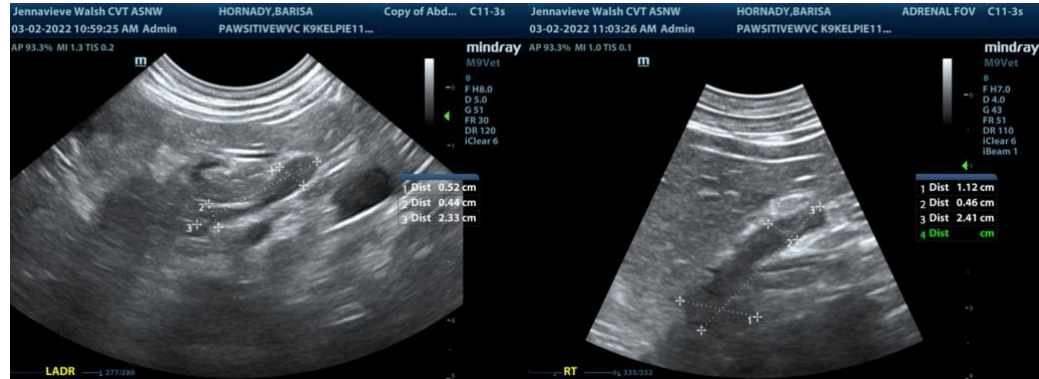
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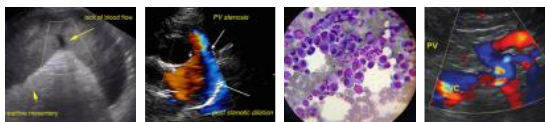
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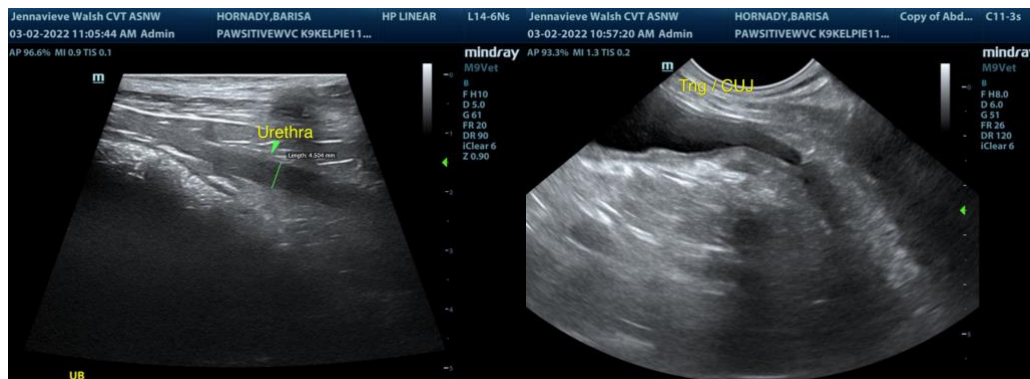
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
**info@SonoPath.com**