



## PATIENT

Joe Worley

## SPECIES

Feline

## BREED

DMH

## SEX

Neutered Male

## AGE

12 years

## WEIGHT

6.5 kg

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Jenna Walsh

## HOSPITAL NAME

Silver Creek AC

## REFERRING VET

Dr. Tangeman

## INVOICE

12170

## DATE

9/2/21

## PRESENTING CLINICAL SIGNS

Patient has been having persistent hematuria. We have cultured the urine and found nothing and seen no crystals, just blood. Current Medications Convenia on 8/21/21

Abnormal PE/Chem/CBC/UA Results: Laboratory Findings Elevated SDMA (18) and Creatinine (2.5)

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder, trigone, cystourethral junction, and proximal pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Moderate, primarily dependent, subjectively mobile, primarily particulate sediment and minor mineralized sand was present. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural criteria was noted within the urinary bladder trigone or cystourethral junction.

The area of the aortic trifurcation was free of pathology.

The renal cortex presented uniformly increased in echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Mild to marked loss of corticomedullary border demarcation was present in both kidneys, most notable in the left. The renal medullary volume was subjectively reduced. Mild fluid dilation of the pelvis potentially extending into the lateral diverticuli was noted in both kidneys. Focal areas of medullary mineralization to renolithiasis were present in both kidneys, more prominent subjectively in the right kidney. The left kidney was mildly subnormal in size compared to the right, measuring 3.2 cm in length. The right kidney measured 4.7 cm in length. No evidence or retroperitoneal inflammation or effusion was noted.

### *Adrenal Glands*

No overt pathology was noted in the area of the left or right adrenal glands.

### *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. The spleen measured 0.68 cm width.

### *Liver/ Gallbladder*

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, echogenic, nonmineralized biliary sludge. This is likely incidental, potentially owing to fasting. The cystic duct and common bile ducts were normal without evidence of dilation.



**PATIENT**

***Gastrointestinal***

Joe Worley

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.

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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.

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

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***Pancreas***

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 were evident.

**AGE**

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***Free Abdomen***

No overt lymphadenopathy or peritoneal effusion was present.

**WEIGHT**

6.5 kg

**ULTRASONOGRAPHIC FINDINGS**

***Primary Findings***

- Bilateral chronic nephropathy with medullary mineralization / renolithiasis and concurrent pyelectasia - advanced CKD, chronic nonspecific nephritis (interstitial nephritis or other) possible, no overt neoplasia
- Mild to moderate dependent to nondependent bladder sediment to mild mineralized sand

**INTERPRETED BY**

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given the negative urine culture and lack of urinary bladder mural disease, It is suspected that the hematuria in this patient is deriving from either the left, right or potential bilateral kidneys. This patient may also be passing small amounts of mineral from the kidneys into the urinary bladder.

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Essential therapy for chronic kidney disease and monitoring of screening blood pressure is warranted. Continued periodic monitoring of urine C/S, as well as renal parameters, is recommended.

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Dr. Tangeman

For an additional charge, internal medicine consult can be utilized through 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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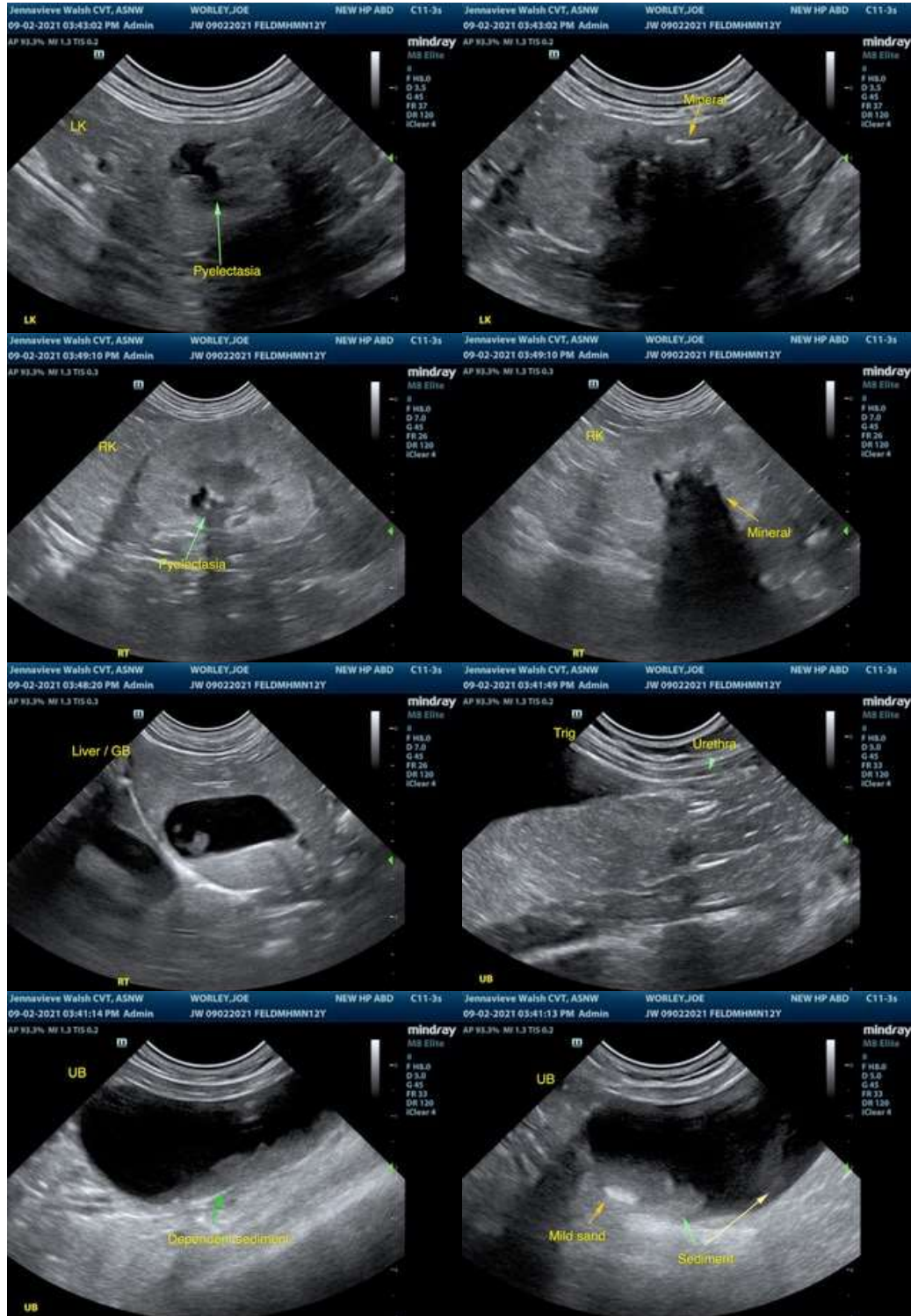
Dr. Tangeman

**INVOICE**

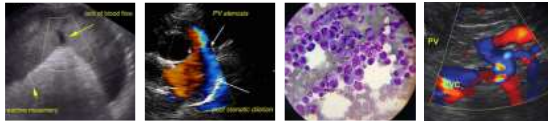
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The information and recommendations provided are based on the images presented by the



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**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**