



**PATIENT PRESENTING CLINICAL SIGNS**

Stevie Brown Coughing, elevated renal values  
 CBC - WBC 24.6 w/ neutrophilia

**SPECIES**  
 Canine Chemistry Panel - BUN 35, Creatinine 1.4, Na/K ratio 32

**BREED ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Chihuahua Urinary System**

**SEX**  
 MN The urinary bladder, trigone, and cystourethral junction exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

**AGE**  
 2013 The area of the residual prostate was free of pathology.

**WEIGHT**  
 4.8 The area of the aortic trifurcation was free of pathology.  
 Mild asymmetrical renal 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 pelvic dilation was present. The left kidney was mildly subnormal in size compared to the right, measuring 2.4 cm in length. The right kidney measured 3.2 cm in length.

**Adrenal Glands**

**INTERPRETED BY**  
 R. McKenzie Daniel, DVM, DABVP (Canine and Feline)  
 The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 1.5 cm length x 0.59 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 1.7 cm length x 0.44 cm width at the caudal pole.

**IMAGING PERFORMED BY Spleen**

Rebekah Jakum, CVT  
 ARDMS/RVT  
 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.

**HOSPITAL NAME Liver/ Gallbladder**

Maple Hills VH  
 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 containing primarily anechoic content with mild areas of nondependent to mildly inspissated echogenic luminal gallbladder debris. The cystic and common bile ducts were normal.

**REFERRING VET**  
 Dr. Eckman

**INVOICE**  
 14668

**DATE**  
 8/23/22



**PATIENT** *Gastrointestinal*

Stevie Brown 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.

**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*

Chihuahua 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.

**SEX**  
MN *Free Abdomen*

No overt lymphadenopathy or peritoneal effusion was present.

**AGE** **ULTRASONOGRAPHIC FINDINGS**

2013 *Primary Findings*

- WEIGHT**
- Bilateral mild chronic renal changes with mild subnormal left kidney size compared to the right

4.8 *Secondary Findings*

- INTERPRETED BY**
- Mild nondependent to congealed gallbladder debris (non-mucocele)

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

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**IMAGING PERFORMED BY**  
Rebekah Jakum, CVT  
ARDMS/RVT

The overall appearance of the kidneys was consistent with chronic renal disease or nephropathy as opposed to acute kidney injury to insult. However, the possibility of acute on chronic renal insult cannot be definitively excluded. Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered. Leptospirosis titers / PCR may be considered if endemic to the area or potential exposure, given the mild azotemia and concurrent presence of coughing.

**HOSPITAL NAME**  
Maple Hills VH

Pending additional renal staging, early CRD therapy, which may include dietary therapy and monitoring of renal parameters going forward, would be reasonable. Hepatosupportive medications including Denamarin and Ursodiol are suggested if evidence of cholestasis.

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