



**PATIENT PRESENTING CLINICAL SIGNS**

Michelin Willekes History: Very thin, muscle loss, decreased appetite and increased panting. Switched to low fat food, Omeprazole, Metacam and is on Thyroid medication. Has also seemed "wobbly".

**SPECIES** Abnormal PE/Chem/CBC/UA Results: n/a

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED**

**Urinary System**

Australian Shepherd

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm 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 were noted. Aortic trifurcation was normal.

**SEX**

Neutered Male

The residual prostate was normal in size and contour with subtle heterogeneous parenchyma, likely consistent with age-related prostatic parenchymal changes with minor prostatic urethral dilation. This is likely incidental and associated with age without evidence of residual prostatic pathology.

**AGE**

13.5 Years

Normal size and margination were 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. Pinpoint medullary mineral was present in both kidneys. Mild pyelectasia was present in the left kidney. The left kidney measured 6.3 cm in length. The right kidney measured 6.4 cm in length.

**WEIGHT**

19 kg

**Adrenal Glands**

**INTERPRETED BY**

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

The left adrenal gland was enlarged in size with maintained capsule integrity, yet areas of asymmetrical capsule contour were noted. Hypoechoic to nonhomogeneous nonmineralized left adrenal parenchyma was present. Overt evidence of vascular invasion was not evident yet cannot be excluded. The left adrenal gland measured 4.4 cm in length x 1.9 cm at the cranial pole and 1.8 cm at the caudal pole.

**IMAGING PERFORMED BY**

Crystal Hill

The right adrenal gland was overtly normal, exhibiting uniform mildly hypoechoic parenchyma and primarily symmetrical capsule contour, measuring 3.2 cm in length x 0.73 cm at the caudal pole in width.

**HOSPITAL NAME**

Grand River VH

**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.

**REFERRING VET**

Dr. Robinson

**Liver**

The liver revealed generalized enlargement with variable lobar swelling noted in the ventral aspect of the left liver as well as the right lateral to caudate liver. Generalized hepatic parenchymal remodeling, exhibiting mildly mixed parenchyma echogenicity. The gall bladder was nondistended with mildly prominent to echogenic gallbladder walls. Primarily anechoic content with mild congealed yet nonorganized luminal debris.

**INVOICE**

14594

**Gastrointestinal**

**DATE**

4/4/22



**PATIENT**

Michelin Willekes

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**

Canine

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Potential for mild ventral duodenal displacement owing to right lateral to caudate hepatomegaly possible. Minor duodenal ileus was present. No evidence of mechanical obstruction or small intestinal foreign material.

**BREED**

Australian Shepherd

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

***Pancreas***

**SEX**

Neutered Male

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.

***Free Abdomen***

No omental masses, lymphadenopathy or effusion was present.

**AGE**

13.5 Years

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

19 kg

- Mild chronic renal changes
- Left adrenomegaly- adenomatous change, hyperplasia, concern for emerging neoplastic criteria
- Hepatomegaly, exhibiting generalized parenchymal remodeling and variable lobar swelling, most prominent in the right lateral to caudate liver- vacuolar hepatopathy, chronic active hepatitis/cholangiohepatitis with some degree of fibrosis or other hepatopathy with potential for neoplasia
- Potential mild chronic cholecystitis with mild luminal debris
- Overtly normal gastrointestinal tract with mild duodenal ileus

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**IMAGING PERFORMED BY**

Crystal Hill

Full adrenal work up warranted in this patient, if clinical signs suggestive of adrenal hyperfunction are present. Screening blood pressure recommended to assess for evidence of hypertension, which may allude to a left pheochromocytoma. Ultrasound guided FNA of the liver, specifically right lateral to caudate hepatomegaly, warranted for screening cytology, assuming normal clotting status.

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Further assessment of the muscle loss in this patient may include a GI panel, to include PLI/TLI/Cobalamin/Folate ad three-view chest radiographs to rule out occult pathology as contributing factors. Correlation with full lab work, including CBC/chemistry panel, urinalysis, T4 levels and as needed gastrointestinal support would be warranted.

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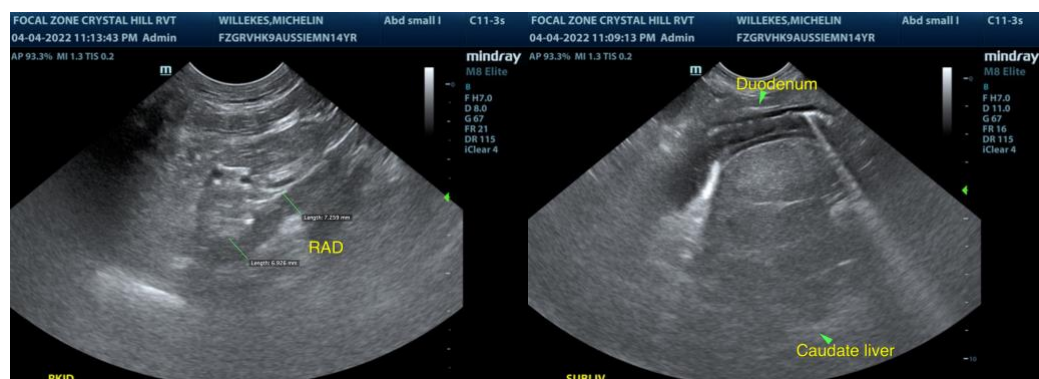
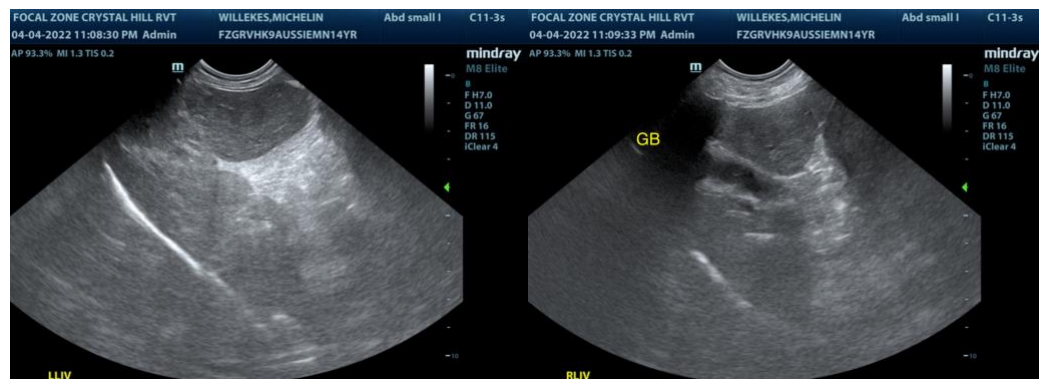
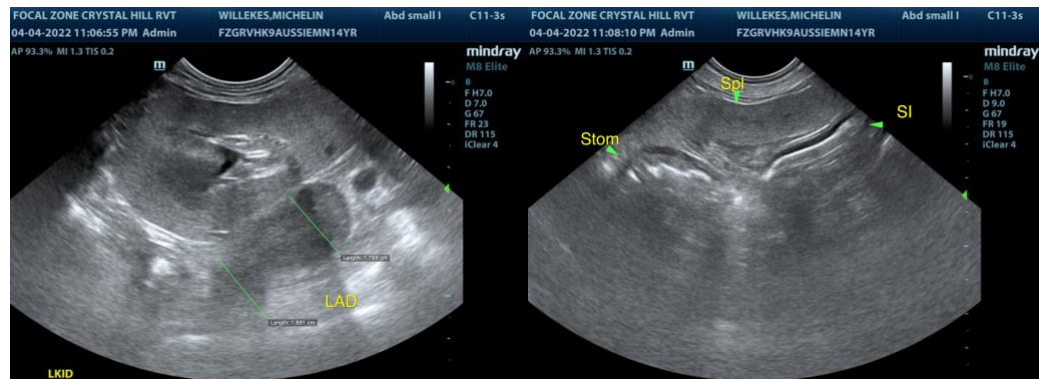
Dr. Robinson

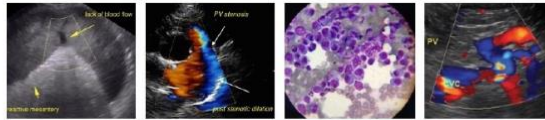
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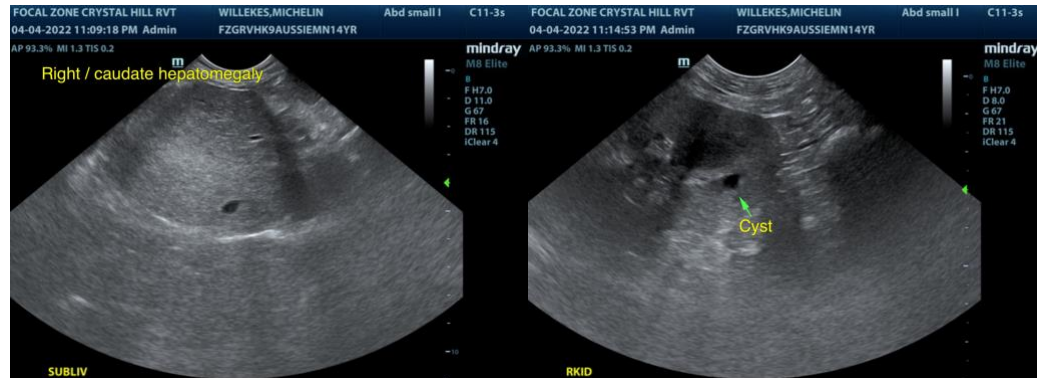
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)**  
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