



**PATIENT PRESENTING CLINICAL SIGNS**

**Baxter Aikman** History: Diagnosed with stage 2 renal disease. Hoping to determine if this is congenital or possible toxin or infectious trigger. No current meds.

**SPECIES** Abnormal PE/Chem/CBC/UA Results: BUN 15.8 CREAT 198 SDMA 23 ALB 1.1 4DX neg  
USG 1.011 UP 30 UP/C 0.5

Canine

**BREED ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Shepherd X

**Urinary System**

**SEX**

Male

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of – 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.

**AGE**

3.5 years

Normal renal size with asymmetrical margination was present in both kidneys. The renal cortex presented mildly nonuniform increased in echogenicity with bilateral cortical thickening. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Mild to moderate loss of corticomedullary distinction was also present. The renal medullary volume was subjectively reduced. The left kidney measured 7.0 cm in length. The right kidney measured 7.2 cm in length.

**WEIGHT**

37.9 kg

The area of the aortic trifurcation was free of pathology.

**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 0.76 cm width at the caudal pole and 0.9 cm width at the cranial pole. The right adrenal gland was indistinctly visualized owing to patient size and confirmation without overt pathology subjectively measuring 0.55 cm width at the caudal pole.

**IMAGING PERFORMED BY**

Crystall Hill

**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.

**HOSPITAL NAME**

Wellington Animal  
Hospital

**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 thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

**REFERRING VET**

Dr. Dennis

**INVOICE**

10240ag

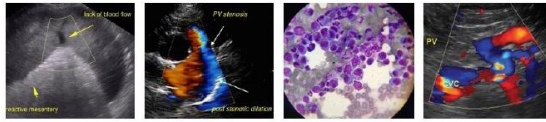
**Gastrointestinal**

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.

**DATE**

03/29/2022

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.



**PATIENT**

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

Baxter Aikman

**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 was evident.

**SPECIES**

Canine

**Free Abdomen**

**BREED**

No overt lymphadenopathy or peritoneal effusion was present.

Shepherd X

**ULTRASONOGRAPHIC FINDINGS**

- Bilateral chronic nephropathy.

**SEX**

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Male

The overall appearance of the bilateral kidneys is consistent with chronic nephropathy as opposed to acute kidney injury or insult. Given the young age of the patient, congenital potentially progressive dysplasia would be a reasonable primary differential diagnosis although possible nonspecific nephritis such as glomerulonephritis or other concurrent glomerulopathy given the proteinuria and mildly elevated UPC could also be possible. A renal biopsy would be required for a definitive diagnosis yet potentially may further exasperate renal dysfunction. Empirically, CKD therapy which may include renal diet, an ACE inhibitor if evidence of hypertension or progressive proteinuria and Omega 3 fatty acids may prove beneficial. Serial monitoring of renal parameters and UA to assess for progressive decreased renal function is recommended. Recheck sonogram could be considered if progressive azotemia for further renal prognosis.

**AGE**

3.5 years

**WEIGHT**

37.9 kg

**INTERPRETED BY**

Although no evidence of bacteria was noted on recent UA, periodic urine C/S would be appropriate.

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(Canine and Feline)

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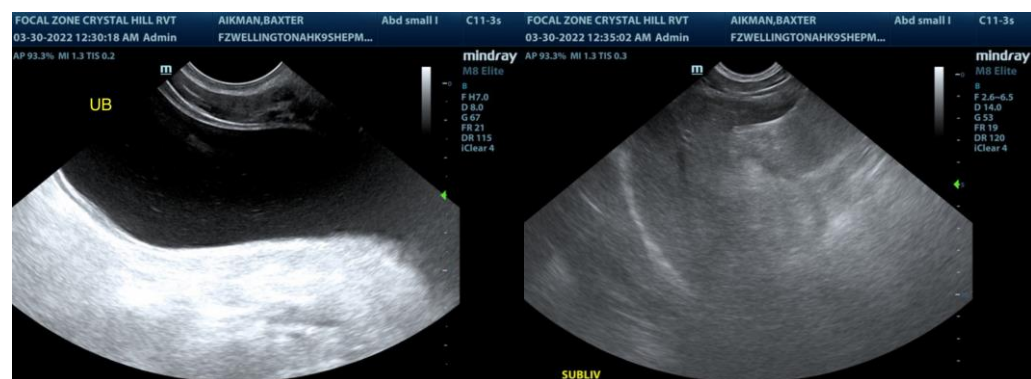
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**PATIENT**

Baxter Aikman

**SPECIES**

Canine

**BREED**

Shepherd X

**SEX**

Male

**AGE**

3.5 years

**WEIGHT**

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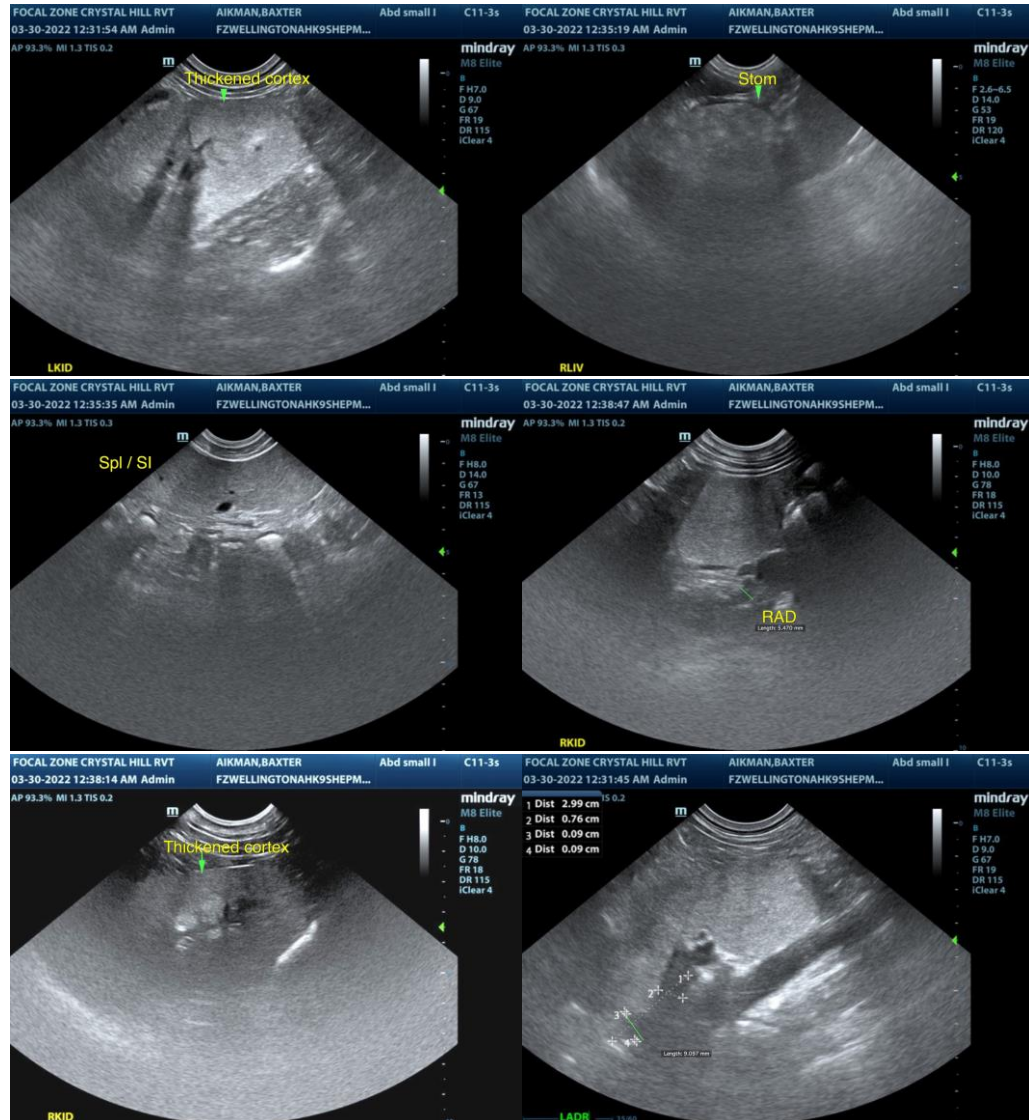
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

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