

**PATIENT**

Maggie Furrer

**SPECIES**

Canine

**BREED**

Border Collie

**SEX**

F/S

**AGE**

4 years

**WEIGHT**

49 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

Creswell Veterinary  
Hospital

**REFERRING VET**

Dr Lauren Furrer

**INVOICE**

16126

**DATE**

2/10/23

**PRESENTING CLINICAL SIGNS**

On Calming Care Probiotic. Numerous urinary issues and/or UTI's, most of which seemed due to stress. Treated with Clavacillin twice and Amoxi once. pH ranged from 6.0-8.0. Started on Hill's c/d in September 2021 which helped immensely overall in controlling urinary issues. Currently she is hiding, more anxious than ever, acting painful (but no specific area of pain on exam). VERY off behaviorally. Has been a bit off for about a week, but drastically worse in the last two days. Drinking excess amounts of water and urinating slightly more frequently. Not straining to urinate. No vomiting, no diarrhea. Still eating and defecating normally. Exam WNL other than her off behavior. Currently on Enrofloxacin and Carprofen pending all the diagnostics. Current Medications Enrofloxacin, Carprofen Radiographic Findings Last taken 7/17/21. Primary Question/Differential to Be Answered in This Exam Kidney issues??? I am very concerned about her kidneys based on my in-house ultrasound, but need a better ultrasonographer professional opinion/diagnostics

Abnormal PE/Chem/CBC/UA Results: Urine to Antech 2/8/23 – pH 9.0 (this is on c/d food), rare RBC and WBC, no bacteria. In-house bloodwork WNL. In-house ultrasound, only possible abnormality is the kidneys (I am seeing large areas of anechoic fluid within kidneys).

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

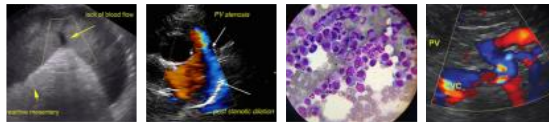
The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal structure and tone. The bladder was nondistended. Anechoic urine was present in the lumen with no sediment, mineral, or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

No evidence of significant medial Iliac or sublumbar lymphadenopathy/masses. Visualized medial iliac lymph node was normal in size, slightly heterogenous compared to adjacent tissue, and exhibited normal width: length ratio (<0.5). The medial iliac lymph node measured 1.8 cm x 0.6 cm.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation, pyelectasia, or pyelonephritis criteria. Scant to discrete free fluid was noted around the left kidney within the left retroperitoneal space with nonuniform increased left retroperitoneal echogenicity extending caudal to the left kidney to the approximate level of the iliac trifurcation. No overt evidence of left retroperitoneal mass was noted. The right retroperitoneal space was sonographically normal. The left kidney measured 6.5 cm in length. The right kidney measured 6.5 cm in length.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 2.7 cm length x 0.38 cm width at the caudal pole. The right adrenal gland



**PATIENT**

Maggie Furrer

**SPECIES**

Canine

**BREED**

Border Collie

**SEX**

F/S

**AGE**

4 years

**WEIGHT**

49 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

Creswell Veterinary  
Hospital

**REFERRING VET**

Dr Lauren Furrer

**INVOICE**

16126

**DATE**

2/10/23

was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 2.0 cm length x 0.61 cm width 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/ 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 thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

**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.

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.

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

**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.

**Free Abdomen**

No overt lymphadenopathy or peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

- Normal urinary bladder and visible proximal urethra
- Structurally normal bilateral kidneys exhibiting 1:3 cortex/medulla ratio, adequate corticomedullary border demarcation, normal corticomedullary echogenicity, no evidence of pyelectasia or overt pyelonephritis criteria
- Scant left retroperitoneal free fluid and generalized nonuniform increased left retroperitoneal echogenicity - nonspecific



**PATIENT**

Maggie Furrer

**SPECIES**

Canine

**BREED**

Border Collie

**SEX**

F/S

**AGE**

4 years

**WEIGHT**

49 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

Creswell Veterinary  
Hospital

**REFERRING VET**

Dr Lauren Furrer

**INVOICE**

16126

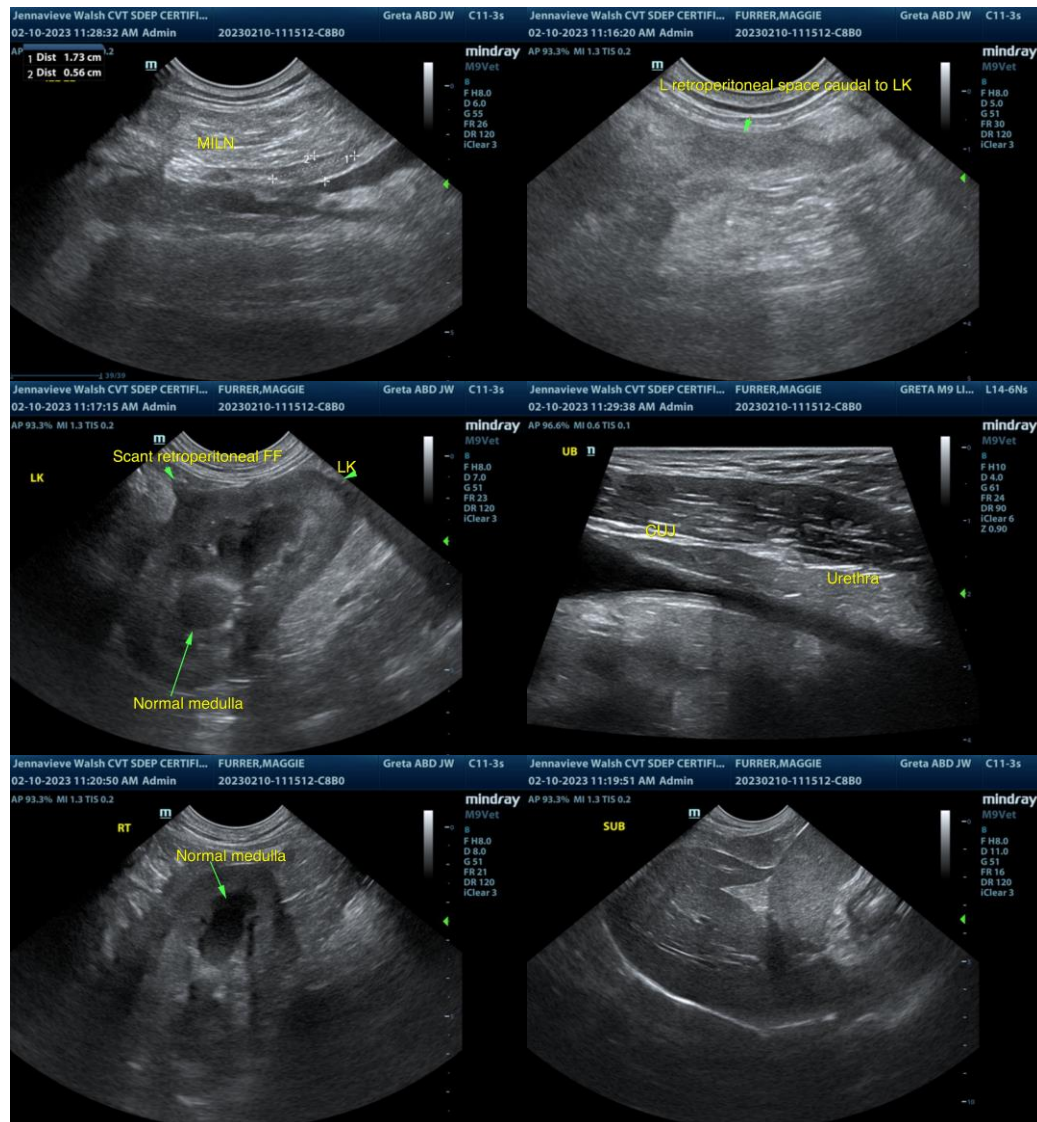
**DATE**

2/10/23

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No sonographic evidence of significant renal pathology, nephritis criteria, or evidence of renal neoplasia. Likewise, the left and right adrenal glands were sonographically normal. Although not definitive, the scant left retroperitoneal free fluid and nonuniform echogenicity may potentially suggest nonspecific mild left retroperitonitis.

If a pocket of left retroperitoneal free fluid can be localized using ultrasound, guided FNA centesis could be considered for possible fluid collection and/or cytology +/- C/S. Likewise, given that the patient is on current antibiotic therapy, sonographic monitoring for evidence of progressive left retroperitoneal echogenic changes or progressive free fluid would be reasonable.





**PATIENT**

Maggie Furrer

**SPECIES**

Canine

**BREED**

Border Collie

**SEX**

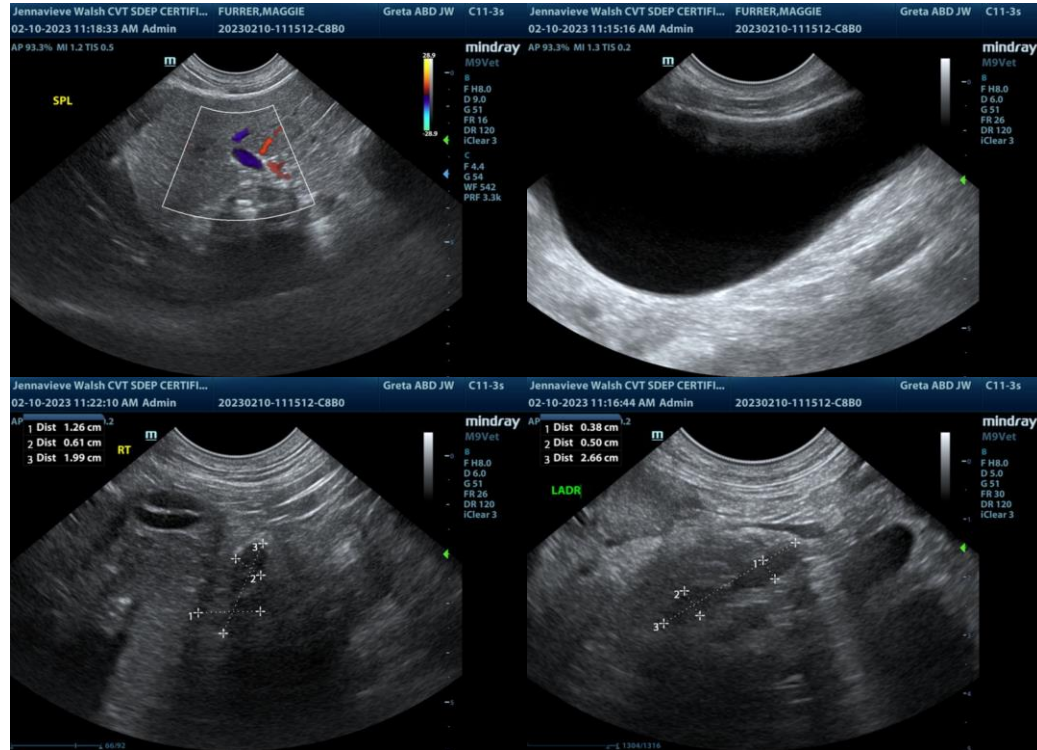
F/S

**AGE**

4 years

**WEIGHT**

49 lbs.



**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

Creswell Veterinary  
Hospital

**REFERRING VET**

Dr Lauren Furrer

**INVOICE**

16126

**DATE**

2/10/23

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)**  
info@SonoPath.com