



**PATIENT**

Parker Cunningham

**SPECIES**

Canine

**BREED**

German Shepherd

**SEX**

FS

**AGE**

11yr

**WEIGHT**

35.1kg

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Jenna Walsh CVT

**HOSPITAL NAME**

Wilvet Salem

**REFERRING VET**

Dr. Mikhaleva

**INVOICE**

12980ag

**DATE**

02/15/2023

**PRESENTING CLINICAL SIGNS**

Patient presented for abnormal behavior. X-Ray report recommended abdominal ultrasound. Patient sedated with Torb/Dexdom

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder was mildly distended with normal tone. The trigone, cystourethral junction, and visible pelvic urethra to a depth of 5 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with mild non-dependent particulate sediment. The sediment may indicate cellular debris / protein, crystalline debris, lipid, or mucus. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

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 to moderate loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 7.8 cm in length. The right kidney measured 8.4 cm in length.

The area of the aortic trifurcation was free of pathology.

The area of the iliac trifurcation was free of pathology including no evidence of medial, iliac or sublumbar lymphadenopathy.

**Adrenal Glands**

The bilateral adrenal glands were normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 3.3 cm length and 0.93 cm width in the caudal pole. The right adrenal gland measured 3.7 cm length and 0.78 cm width in the caudal pole.

**Spleen**

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. 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. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age related remodeling with minor potential for inflammatory or neoplastic disease.

**Liver/Gallbladder**

The liver presented mild to moderately enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. Evidence of congested hepatic vasculature was present most likely secondary to sedation. No evidence of hepatic masses/nodules. The gallbladder was non-distended in size with primarily anechoic luminal content and moderate non-dependent variably hyperechoic non-organized debris. The cystic and common bile ducts were normal.



**PATIENT** *Gastrointestinal*

Parker Cunningham 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. 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 pancreas base and right pancreatic limb exhibited subtle prominent size, mild capsule asymmetry and minor non-homogenous to hypoechoic parenchyma compared to the adjacent omental fat.

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11yr

*Free Abdomen*

No omental masses or overt lymphadenopathy was present. Mild volume anechoic peritoneal free fluid was present.

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

35.1kg

- Non-specific hepatomegaly with evidence of vascular congestion likely secondary to sedation
- Moderate gallbladder debris-not consistent with mucocele criteria
- Mild heterogenous spleen-subjectively benign
- Age related renal changes
- Heterogenous mildly prominent pancreas base/right pancreatic limb-age related pancreatic changes, remodeling owing to previous inflammation or low grade to chronic pancreatitis possible
- Mild volume anechoic peritoneal free fluid

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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The peritoneal free fluid is non-specific yet given lack of fluid echogenic changes is indicative of suspected non-septic peritoneal free fluid secondary to increased vascular permeability, decreased hydrostatic pressure while the possibility of septic or neoplastic effusion cannot be excluded.

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Fluid analysis +/- C/S recommended if clinically indicated. Correlation with full CBC/chem/UA if not done is recommended. If evidence of hepatic enzyme elevations and assuming normal clotting status a hepatic FNA for screening cytology is warranted for further assessment although sonographically hepatomegaly was not overtly suggestive of infiltrative neoplasia. A spec cPL or given the breed, a GI panel to include PLI/TLI/Cobalamin/Folate is recommended. Three view chest radiographs are recommended if not done to assess for occult thoracic pathology or cardiomegaly.

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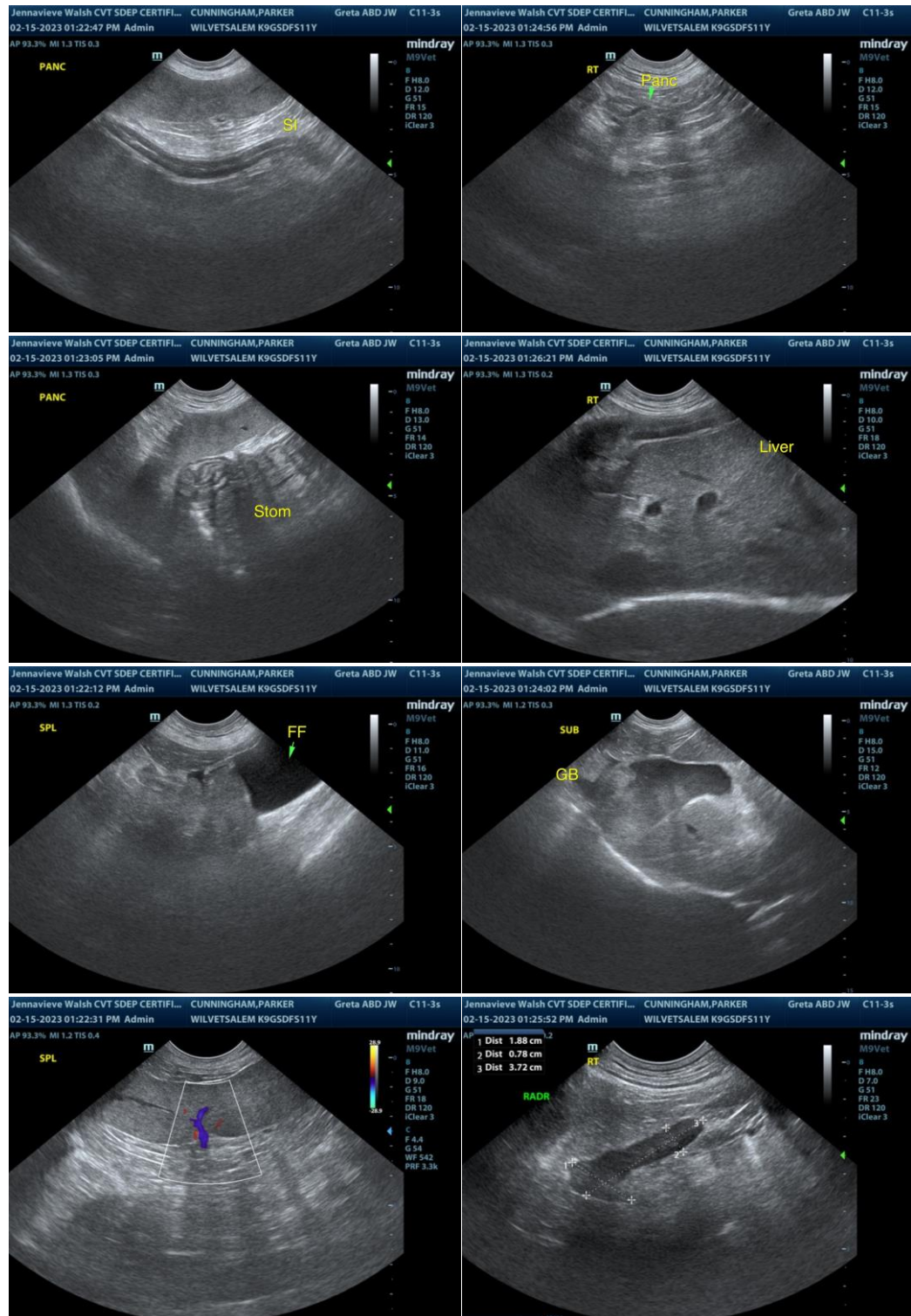
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

info@SonoPath.com