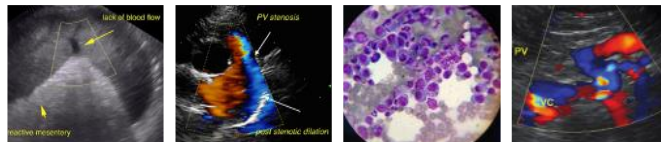


|  |   |
|--|---|
| <b>PATIENT</b>   | <b>PRESENTING CLINICAL SIGNS</b>  |
| Cooper Kelly   | Chronic periodontal disease. Pre dental assessment  |
| <b>SPECIES</b>   | Abnormal PE/Chem/CBC/UA Results: Chronic moderate elevation of liver enzymes  |
| Canine   | <b>ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN</b>  |
| <b>BREED</b>   | <b>Urinary System</b>   |
| Lab  | The urinary bladder, 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 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.   |
| <b>SEX</b>   | 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. No evidence of pelvic dilatation was present. Bilateral areas of pinpoint medullary mineral were present. The left kidney measured 5.5 cm in length. The right kidney measured 5.5 cm in length.  |
| MN   |   |
| <b>AGE</b>   |   |
| 11   | The area of the aortic trifurcation was free of pathology.<br><br>The area of the residual prostate appeared normal and free of pathology measuring 1.2 cm in diameter.   |
| <b>WEIGHT</b>  | <b>Adrenal Glands</b>   |
| 40kg   | An indistinct non-disruptive hyperechoic nodule was present in the adrenal gland with mild associated symmetrical capsule expansion. The nodule did not exhibit signs of mineralization or vascular invasion. The nodule measured 1.3 cm x 0.95 cm. The left adrenal gland measured 0.53 cm at the cranial pole.<br><br>The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.60 cm width at the caudal pole and 0.75 cm width at the cranial pole.  |
| <b>INTERPRETED BY</b>                                    | <b>Spleen</b>   |
| R. McKenzie Daniel,<br>DVM, DABVP<br>(Canine and Feline) | 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.                                  |
| <b>IMAGING PERFORMED BY</b>                              | <b>Liver/Gallbladder</b>  |
| Dr. Belan  | The liver exhibited borderline to mild subnormal size with symmetrical capsule contour. Subjective adequate vascular volume was present. Mild increased prominence of portal vascular borders with normal overall parenchymal echogenicity exhibiting mild to moderate coarse echotexture was present.<br><br>The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content with mild non-organized echogenic debris in the caudal lumen of the gallbladder neck. No evidence of gallbladder or peripheral gallbladder inflammation was present. The cystic and common bile ducts were normal. |
| <b>HOSPITAL NAME</b>                                     |   |
| Chaparral Vet Clinic                                     |   |
| <b>REFERRING VET</b>                                     |   |
| Dr. Gradzhev   |   |
| <b>INVOICE</b>   |   |
| 13701ag  |   |
| <b>DATE</b>  | <b>Gastrointestinal</b>   |
| 05/03/2023   |   |



**PATIENT**

Cooper Kelly

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.

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

**Pancreas**

**BREED**

Lab

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.

**SEX**

MN

**Free Abdomen**

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

**AGE**

11

- Caudal left adrenal nodule-suspect adenoma.
- Subjective borderline to mild subnormal liver size-benign hepatopathy.
- Gallbladder debris (non-mucocele).
- Mild age related renal changes with pinpoint medullary mineral.

**WEIGHT**

40kg

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The liver was non-specific yet consistent with chronic benign hepatopathy. Depending upon degree and type of hepatic enzyme elevation, considerations may include chronic non-specific hepatitis, vacuolar hepatopathy or other hepatopathy with infiltrative neoplasia considered unlikely. Hepatic sampling would be required for further definition. No evidence of intrahepatic or extrahepatic macroscopic shunt was visualized. Adequate hepatic functionality may be assumed if normal ALB, BUN, CHOL and GLU.

Bile acid testing could be considered for further assessment. A leptospirosis titer/PCR may be considered if clinically indicated or if potential exposure/endemic to the area.

Hepatosupportive medications such as Denamarin and Ursodiol with reassessment of hepatic enzymes following dental prophylaxis would be reasonable.

No overt anesthetic indications assuming evidence of normal hepatic function.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Belan

**HOSPITAL NAME**

Chaparral Vet Clinic

**REFERRING VET**

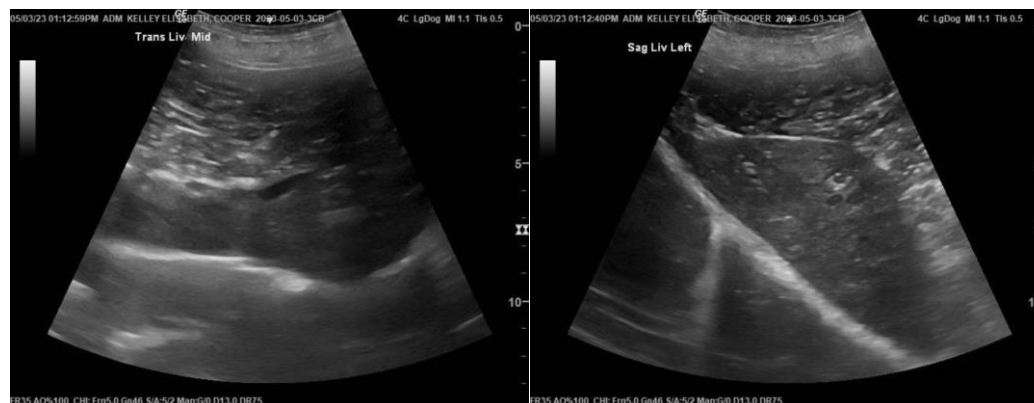
Dr. Gradzhev

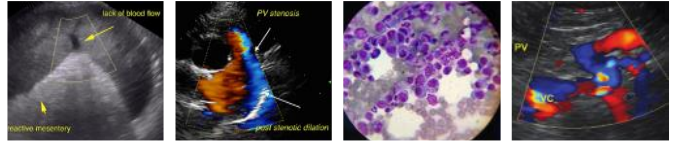
**INVOICE**

13701ag

**DATE**

05/03/2023





**PATIENT**

Cooper Kelly

**SPECIES**

Canine

**BREED**

Lab

**SEX**

MN

**AGE**

11

**WEIGHT**

40kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Belan

**HOSPITAL NAME**

Chaparral Vet Clinic

**REFERRING VET**

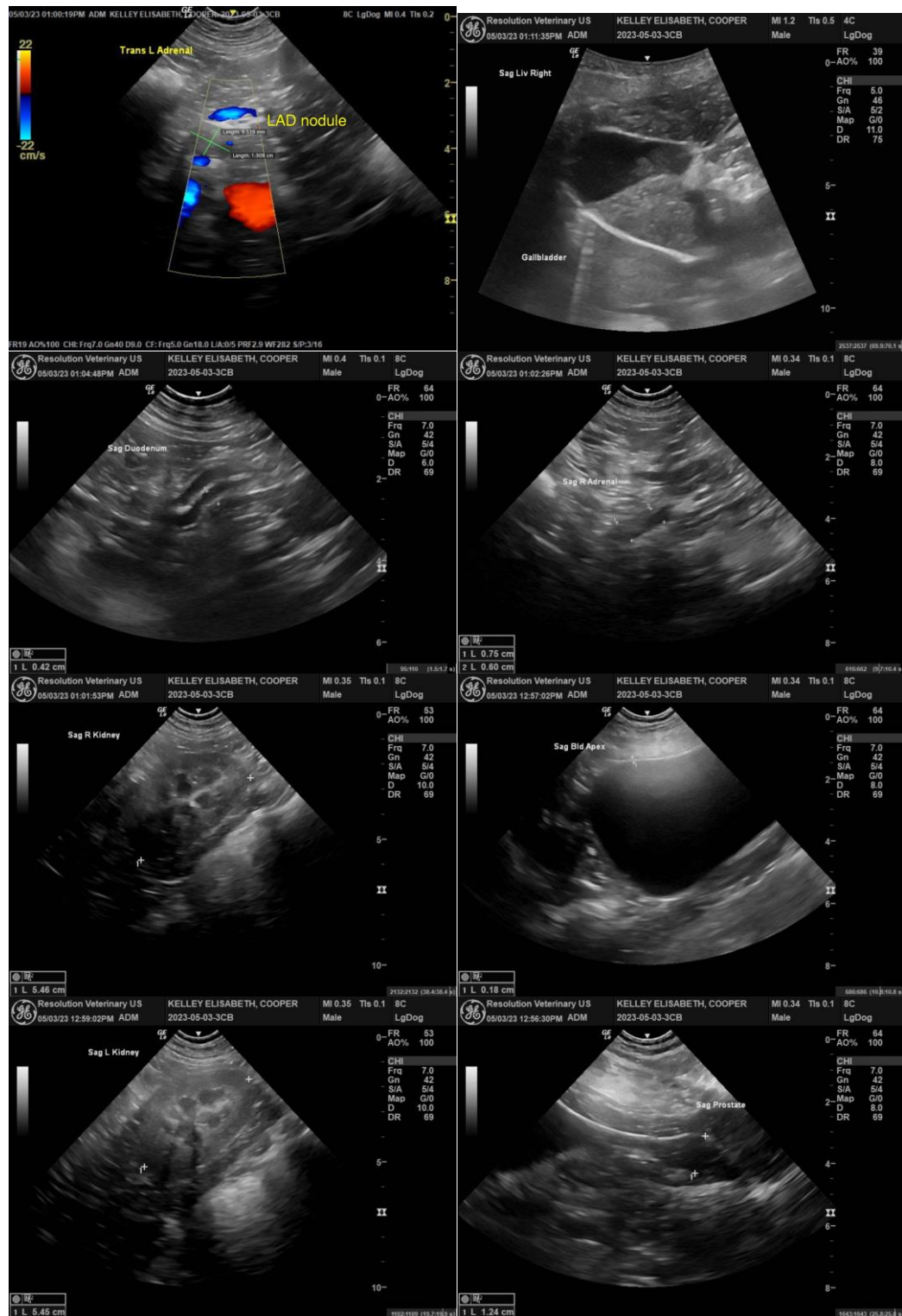
Dr. Gradzhev

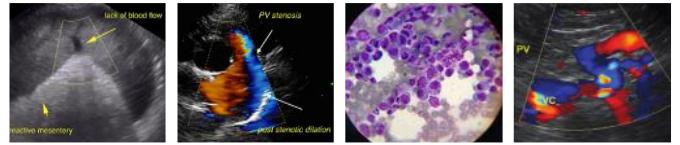
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13701ag

**DATE**

05/03/2023





**PATIENT**

Cooper Kelly

**SPECIES**

Canine

**BREED**

Lab

**SEX**

MN

**AGE**

11

**WEIGHT**

40kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Belan

**HOSPITAL NAME**

Chaparral Vet Clinic

**REFERRING VET**

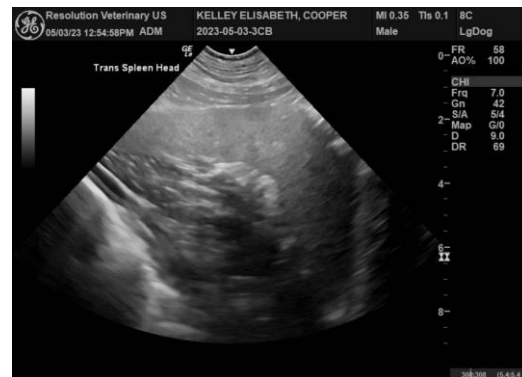
Dr. Gradzhev

**INVOICE**

13701ag

**DATE**

05/03/2023



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)  
[mac.daniel@sonopath.com](mailto:mac.daniel@sonopath.com)