



**PATIENT PRESENTING CLINICAL SIGNS**

Opie Pumphrey Elevated liver values. Medication: Denamarin, Dasuquin

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**SPECIES**

Canine

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 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.

**BREED**

Cattle Dog Mix

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 loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. A small left kidney caudolateral cyst was present. The left kidney measured 5.7 cm in length. The right kidney measured 5.7 cm in length.

**SEX**

MN

The area of the aortic trifurcation was free of pathology.

**AGE**

2010

The area of the residual prostate appeared normal and free of pathology.

**Adrenal Glands**

**WEIGHT**

39.4

The left adrenal gland was mildly prominent in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 3.1 cm length and 0.98 cm width in the caudal pole. The right adrenal gland measured 2.2 cm length and 0.40 cm width in the caudal pole.

**INTERPRETED BY**

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

**Spleen**

The spleen exhibited overall normal size and contour with a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. A mildly expansive well-demarcated mixed echogenic macronodule was present in the mid to cranial spleen measuring 3.4 cm in diameter. Concurrent cystic nodule present in the medial parenchyma measuring 1.8 cm in diameter. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis.

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
 ARDMS/RVT

**Liver/Gallbladder**

**HOSPITAL NAME**

Littlestown VH

The liver presented 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. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with primarily anechoic luminal content and mild non-organized variably echogenic debris. The cystic and common bile ducts were normal.

**REFERRING VET**

Dr. Holland

**Gastrointestinal**

**INVOICE**

12858ag

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**

02/03/2023

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.



**PATIENT** *Pancreas*

Opie Pumfrey The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

**SPECIES** *Free Abdomen*

Canine No omental masses, overt lymphadenopathy or peritoneal effusion was present.  
Rapid view of the heart revealed no evidence of pericardial masses or effusion in the visible window.

**BREED** **ULTRASONOGRAPHIC FINDINGS**

Cattle Dog Mix

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**WEIGHT**

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- Mild age related renal changes with small left kidney cortical cyst
- Mildly prominent to irregular left adrenal gland
- Well demarcated mixed echogenic splenic macronodule with concurrent cystic nodule
- Benign hepatopathy
- Mild gallbladder debris (non-mucocele)
- Heterogenous pancreas

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The lack of reported clinical signs suggests that primary adrenal disease is less likely in this patient. A full adrenal work up could be considered if evidence of Cushing's syndrome arises.

Assuming normal clotting status and using a 25g needle, a hepatic FNA for screening cytology is warranted for further assessment of potential identification if inflammatory cells if present. The addition of Ursodiol to current Denamarin may prove beneficial.

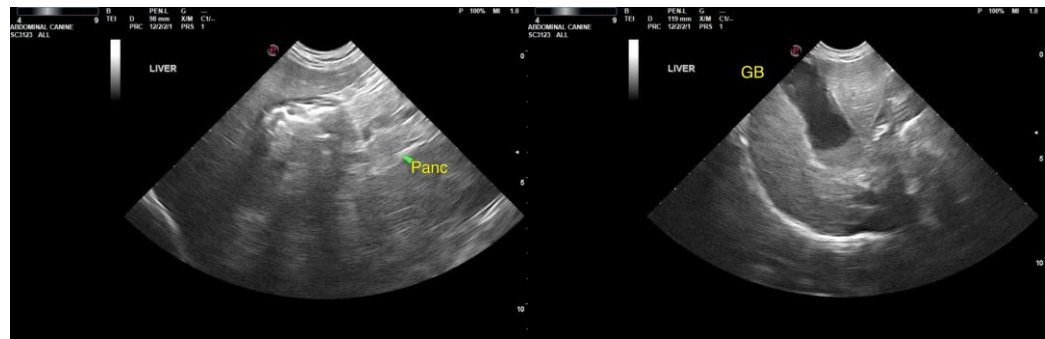
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A spec cPL could be considered to assess for potential low-grade or chronic pancreatitis if clinical signs are noted, however no evidence of overt active pancreatic inflammation was present. Sonographically the splenic nodules are not overtly suggestive of neoplastic criteria. Monitoring of the splenic nodules for evidence of progression with initial recheck in 4-6 weeks would be ideal. Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.

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**PATIENT**

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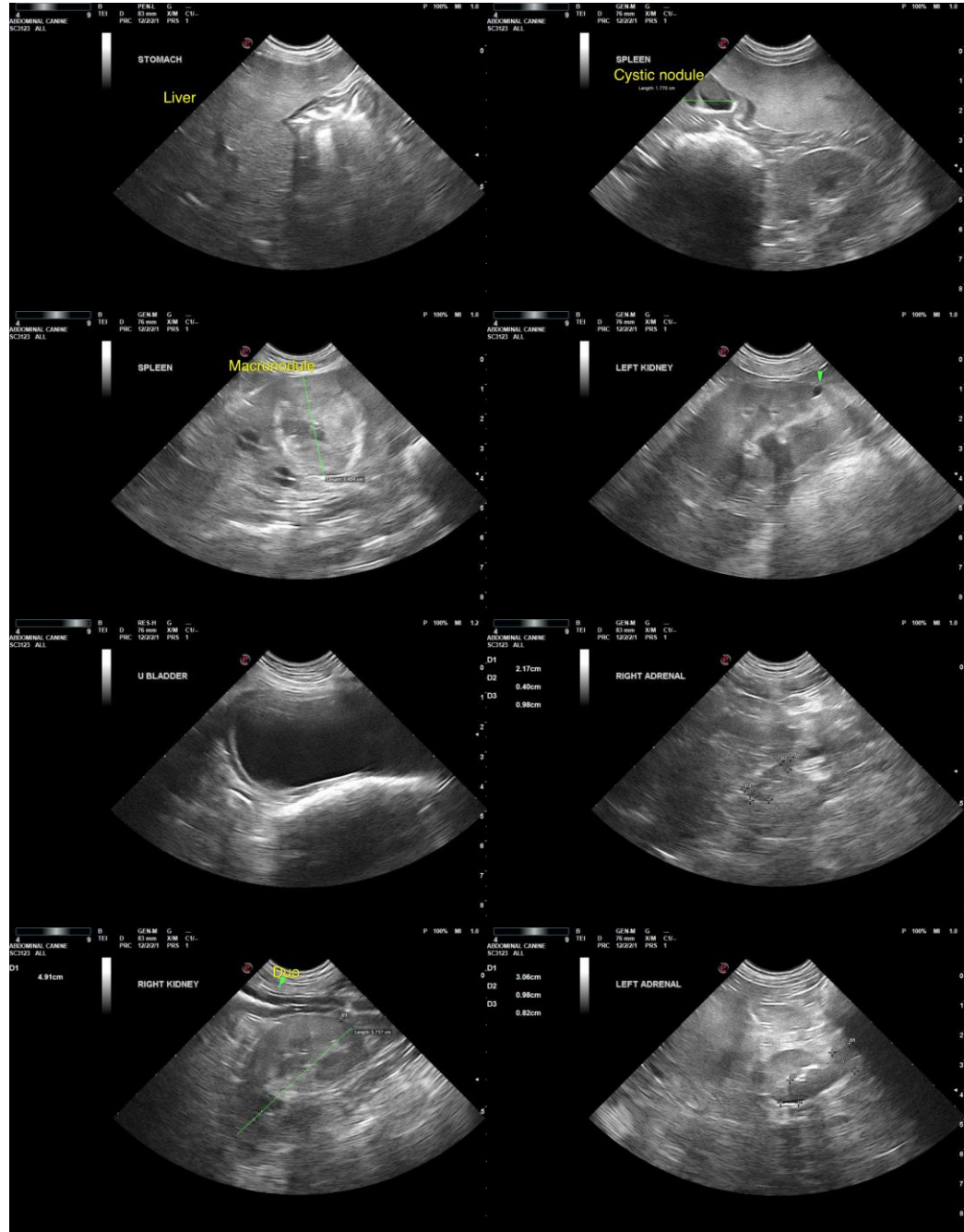
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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