



**PATIENT PRESENTING CLINICAL SIGNS**

Zalyn Harner History: 3 week duration decreased activity, panting, concern for liver issue  
 Abnormal PE/Chem/CBC/UA Results: ALT 326 (previously 373), ALP 186, Na:K 36

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Canine

**Urinary System**

**BREED**

Lab Mix

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2 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.

**SEX**

FS

**AGE**

2017

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. No evidence of renal mineralization or calculi was noted. The left kidney measured 6.5 cm in length. The right kidney measured 6.2 cm in length.

The area of the aortic trifurcation was free of pathology.

No overt pathology in the area of the uterine remnant.

**WEIGHT**

85

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.59 cm width at the caudal pole and 2.2 cm length. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.62 cm width at the caudal pole and 2.7 cm length.

**INTERPRETED BY**

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

**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.

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
 ARDMS/RVT

**Liver**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a moderate coarse echotexture and evidence of minor parenchymal remodeling. Mildly indistinct portal vascular borders were present. No masses or nodules were noted.

**HOSPITAL NAME**

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 Hospital

**REFERRING VET**

Dr. Jennings

The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

**Gastrointestinal**

**INVOICE**

11362ag

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.

**DATE**

08/15/2022



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

Zalyn Harner **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.

Lab Mix

**ULTRASONOGRAPHIC FINDINGS**

**SEX**

- Hepatopathy
- Otherwise sonographically unremarkable abdomen

FS

**AGE**

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

2017

Overall, the appearance of the liver was nonspecific yet sonographically suggestive of benign chronic to low grade hepatopathy. Primary consideration for chronic non-specific hepatitis given the ALT elevation is warranted. Assuming normal clotting status and using a 25g needle a hepatic FNA is recommended for screening cytology. Hepatic core surgical biopsy is likely required for a definitive diagnosis. No overt evidence of a portosystemic vascular anomaly was present. Bile acid testing could be considered to assess hepatic functionality although function is likely adequate given the normal ALB, GLU, CHOL and BUN levels. Hepatosupportive medication may prove beneficial. A resting cortisol level to rule out occult Addison's disease as well as three view chest radiographs suggested if not done to assess for thoracic pathology.

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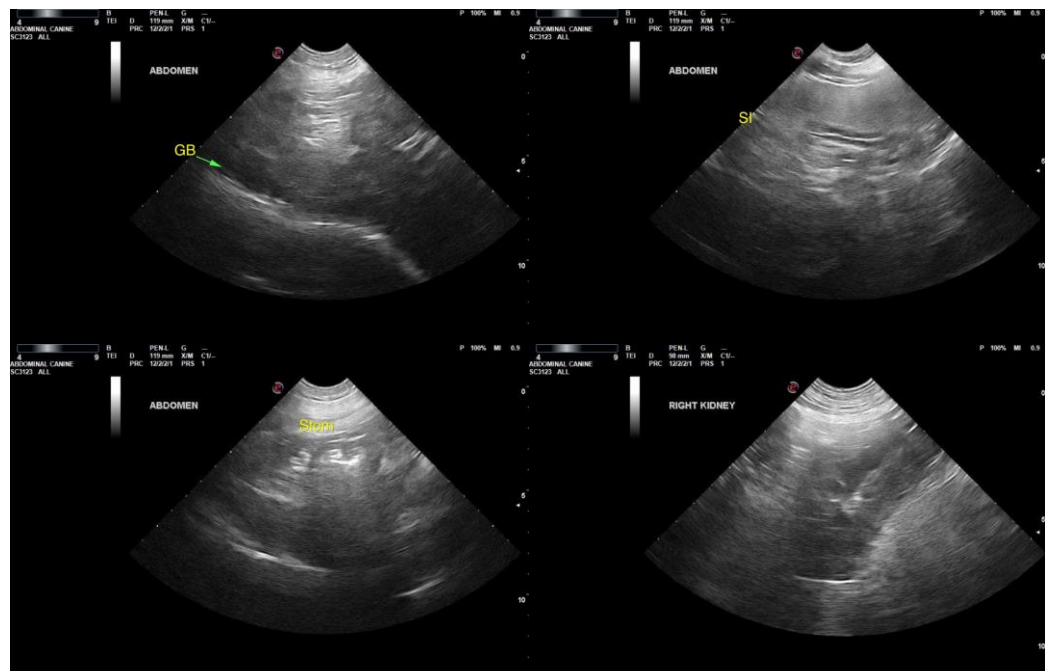
Dr. Jennings

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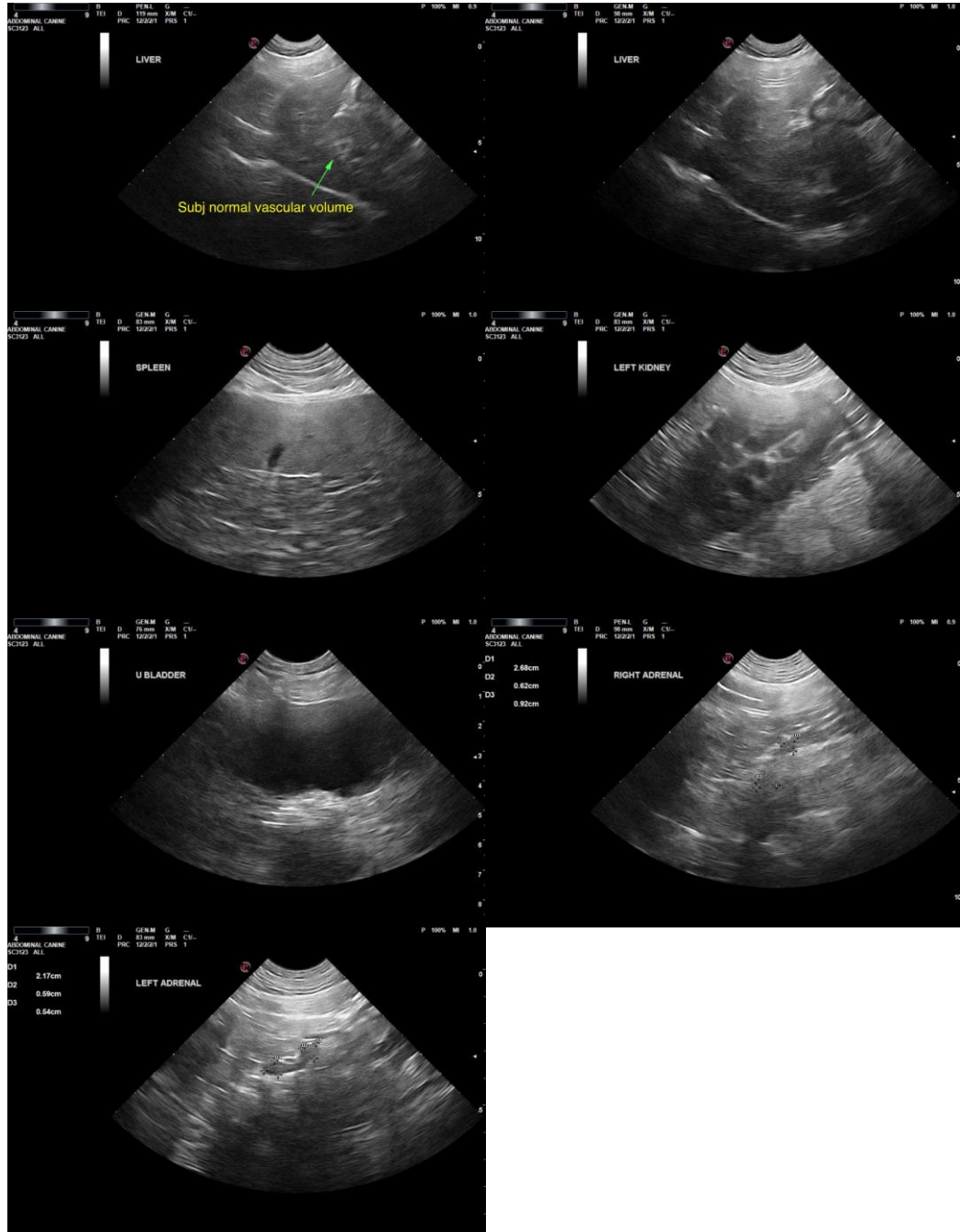
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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