



**PATIENT**

Bella Einfeldt

**SPECIES**

Canine

**BREED**

Mix

**SEX**

Fs

**AGE**

11 years

**WEIGHT**

63 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jessica Miller

**HOSPITAL NAME**

American AH

**REFERRING VET**

Dr. Arculli

**INVOICE**

13887

**DATE**

5/17/22

**PRESENTING CLINICAL SIGNS**

Elevated ALT on routine BW. Mild decrease after 1 month Denamarin. Bile acids normal (pre and post)  
Current meds: Denamarin  
Abnormal PE/Chem/CBC/UA Results: ALT 367-418

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Mild to moderate non-dependent, particulate sediment was present without evidence of calculus formation. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.

The area of the aortic trifurcation was free of pathology.

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 dilation was present. The left kidney measured 6.4 cm in length. The right kidney measured 6.7 cm in length.

**Adrenal Glands**

The left adrenal gland was normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 2.1 cm length x 0.57 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 2.6 cm length x 0.51 cm width at the caudal pole. Potential, although indistinct, isoechoic parenchymal expansion in the area of the left phrenicoabdominal vein, measuring approximately 0.5 cm in diameter, was present.

**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 mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. 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.



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***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**

- Urinary bladder sediment
- Mild chronic renal changes
- Hepatopathy - subjectively benign
- Sonographically unremarkable gallbladder
- Possible focal although indistinct left adrenal parenchymal expansion area of left phrenicoabdominal vein

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The overall appearance of the liver was nonspecific yet is suggestive of mild Inflammatory hepatopathy, given the ALT elevation. Ultrasound-guided FNA of the liver, assuming normal clotting status and using a 25-gauge needle, could be considered for screening cytology primarily to assess for or possibly identify inflammatory cell type if present.

Continued empirical hepatosupportive medications including the possible addition of Ursodiol due to its antioxidant and immuno-modulatory effects within the liver with continued monitoring of liver enzymes would be reasonable.

The potential for mild left adrenal parenchymal expansion in the area of the left phrenicoabdominal vein is nonspecific and may indicate patient variant or mild adenomatous change without overt evidence of neoplastic criteria. Screening blood pressure could be considered to assess for evidence of hypertension. Sonographic monitoring of this finding with initial recheck in 4-6 weeks to ensure no evidence of progression is suggested.

The urinary bladder sediment may suggest cellular / crystalline debris or mucus. Cystocentesis for UA +/- C/S if evidence of inflammatory cells is recommended.



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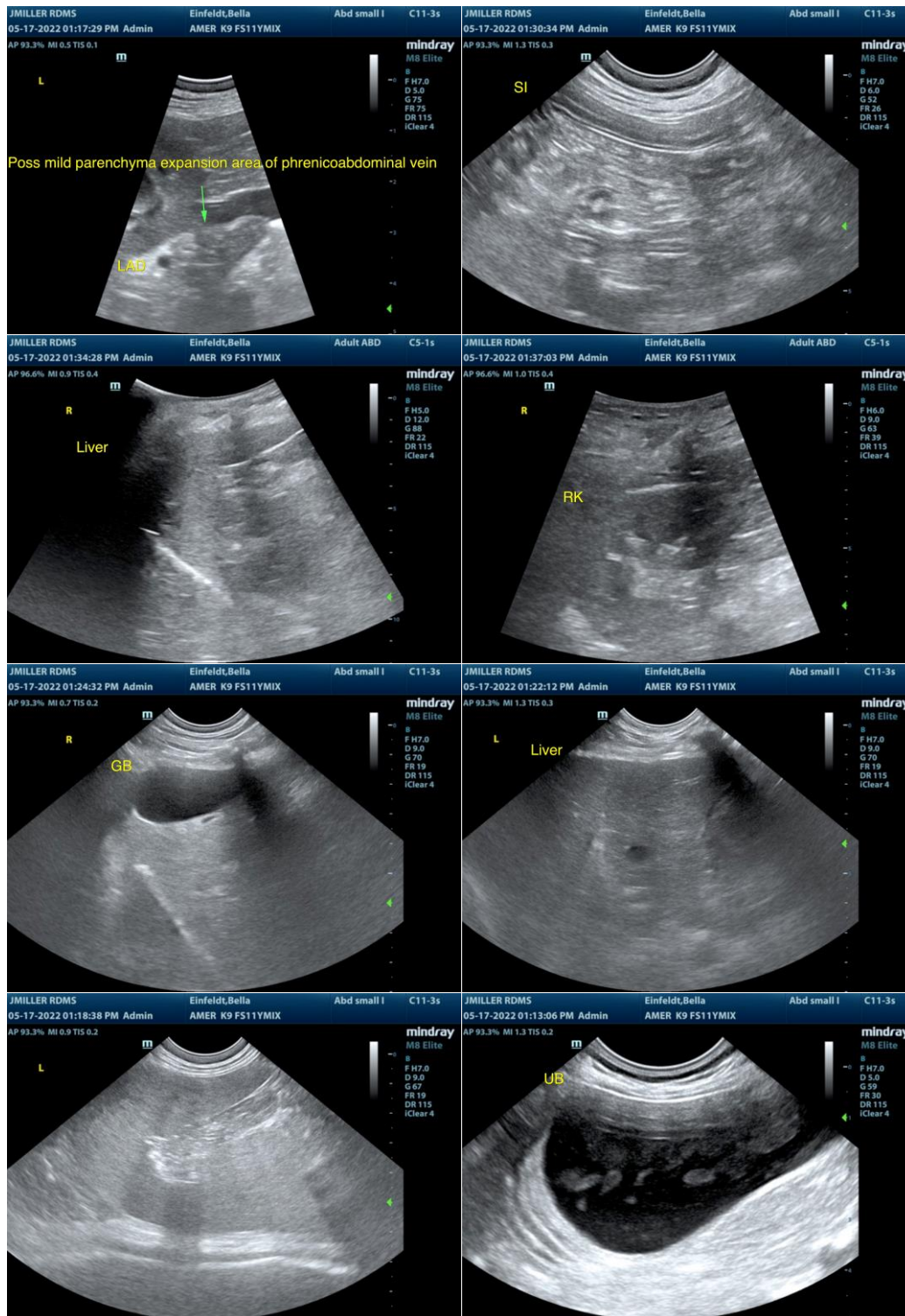
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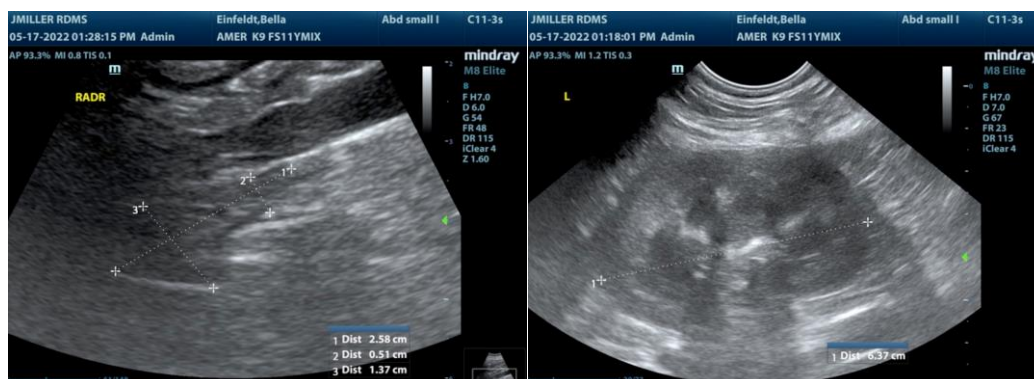
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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