



**PATIENT PRESENTING CLINICAL SIGNS**

Taz Knauss Elevated Alkph, Bili, 3/6 murmur, history of diarrhea BI Balance Pro, EN, Tylan  
 ALP 286, Cholesterol 353, Lipase 254, total protein 7.8, Albumin 3.8, Unremarkable CBC

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED**

Yorkie

**Urinary System**

The urinary bladder, trigone, and cystourethral junction 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 was noted.

**SEX**

MN

No overt pathology was noted in the area of the residual prostate.

**AGE**

2009

The area of the aortic trifurcation was free of pathology.

**WEIGHT**

9.2

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. Pinpoint medullary mineral was present in both kidneys. The left kidney measured 3.6 cm in length. The right kidney measured 4.4 cm in length.

**Adrenal Glands**

**INTERPRETED BY**

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

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 1.9 cm length x 0.51 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 2.5 cm length x 0.33 cm width at the caudal pole.

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
 ARDMS/RVT

**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.

**HOSPITAL NAME**

Community VP

**Liver/ Gallbladder**

**REFERRING VET**

Dr. Hulshizer

The liver presented subjective mild enlargement. 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. The cystic and common bile ducts were normal.

**INVOICE**

14404

**DATE**

7/26/22



**PATIENT** ***Gastrointestinal***

Taz Knauss The stomach presented intact wall layering with a normal wall layer ratio. The stomach contained a mild amount of retained anechoic fluid and pockets of luminal gas. No evidence of mechanical pyloric outflow obstruction was noted.

**SPECIES**

Canine The small intestine presented intact yet mildly prominent wall layering owing to segmental to generalized propensity for mildly prominent small intestinal mucosa. The duodenum wall measured 0.44 cm width. The jejunum wall measured 0.30 cm width. Segmental mild small intestinal corrugation was noted. No evidence of mechanical / metabolic ileus, loss of intestinal wall layering, or Intestinal obstructive criteria was noted.

**BREED**

Yorkie Normal visible colon wall layers were present with apparent formed to semi-formed feces in lumen.

**SEX**

MN

***Pancreas***

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

**AGE**

2009

***Free Abdomen***

No overt lymphadenopathy or peritoneal effusion was present.

**WEIGHT**

9.2

**ULTRASONOGRAPHIC FINDINGS**

- Vacuolar hepatopathy pattern - subjectively benign
- Mild hypomotile stomach
- Intact yet subjectively prominent small intestinal walls with segmental mild small intestinal corrugation
- Minor chronic renal changes with pinpoint medullary mineral
- Mild hepatic parenchymal remodeling - age-related pancreatic changes, potential for low-grade chronic pancreatitis possible

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Overall, largely geriatric abdomen without evidence of significant visceral pathology.

**HOSPITAL NAME**

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Although potential for patient variant, the small intestine exhibited subjective subtle mural changes along with minor segmental corrugation which may suggest underlying inflammatory process, given the patient's history of diarrhea. Potential low-grade chronic pancreatitis could also be a contributing factor. Further assessment may include a GI panel to include PLI/TLI/Cobalamin/Folate.

**REFERRING VET**

Dr. Hulshizer

Hepatosupportive medications including Denamarin and Ursodiol may prove beneficial. If recurrent diarrhea despite current therapy, a novel protein or hydrolyzed diet trial with potential for long-term dietary therapy, high colony count probiotics such as Provable, and empirical broad spectrum deworming could be considered.

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**HOSPITAL NAME**

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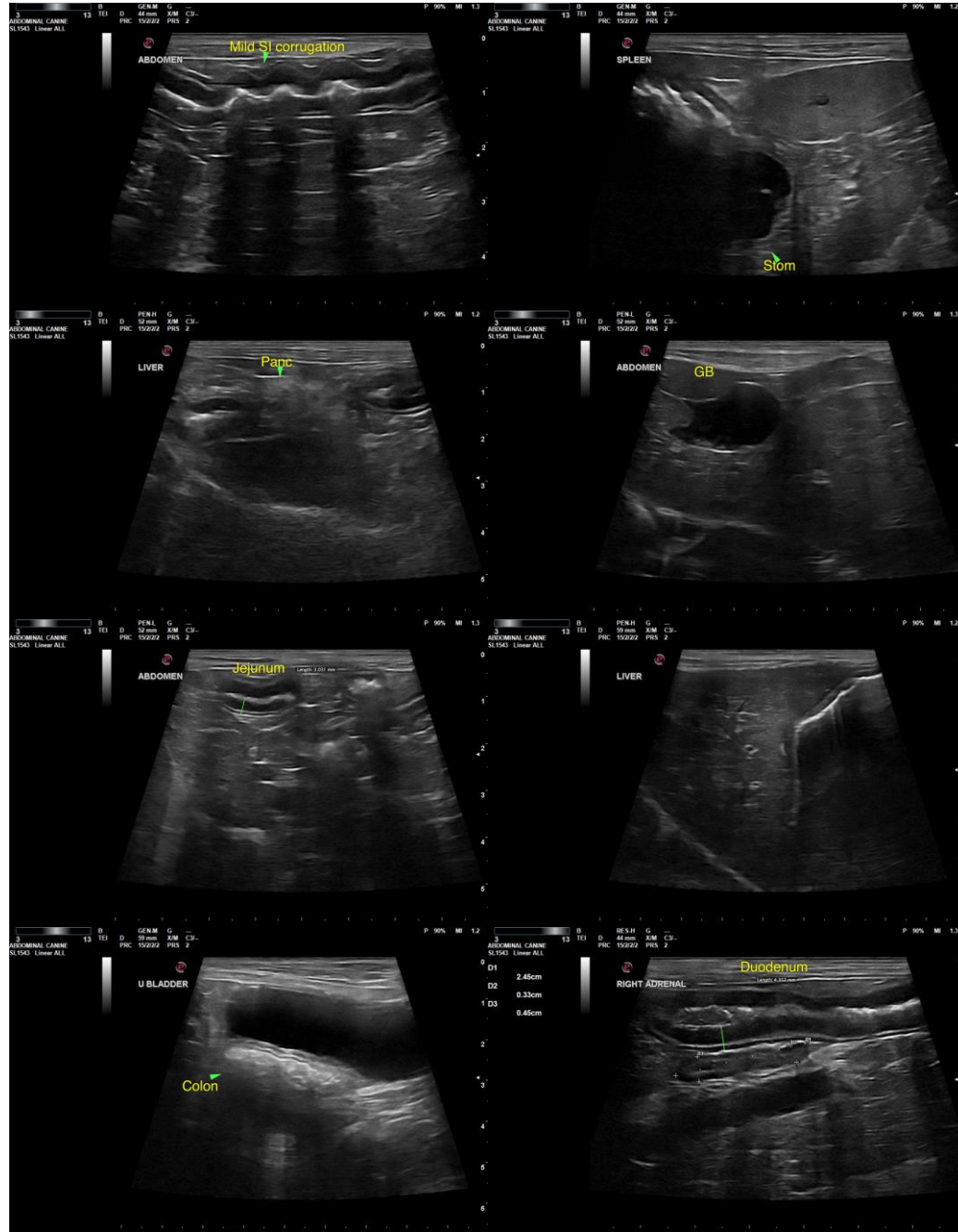
Dr. Hulshizer

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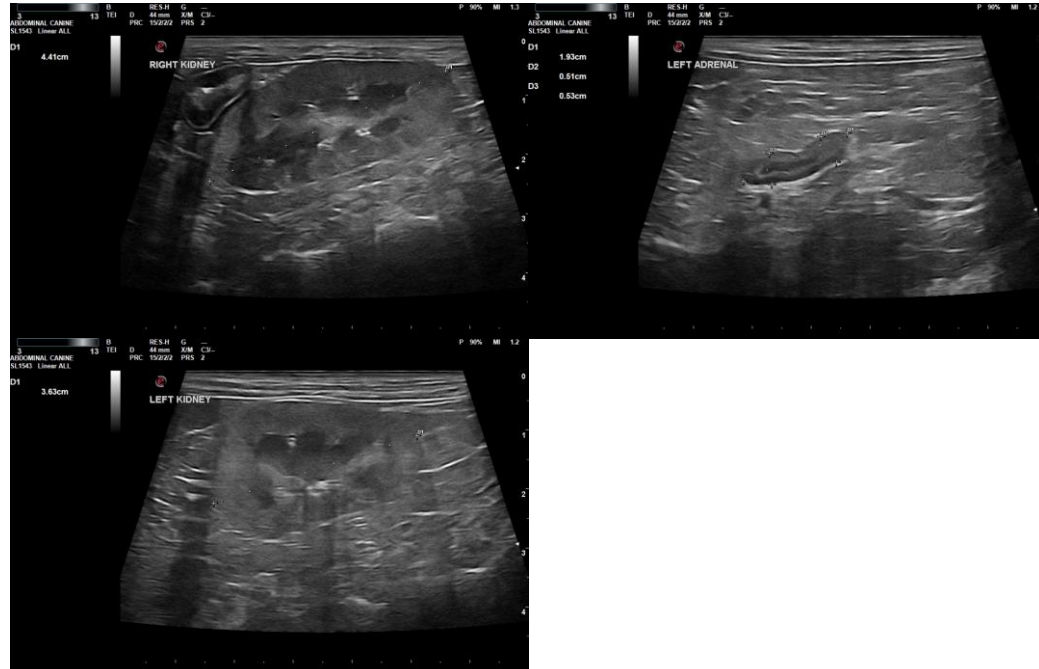
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**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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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