



**PATIENT PRESENTING CLINICAL SIGNS**

Kenji Morrill

Presented on Dec. 31 for vomiting multiple times and being hyporexic. On PE, mild dehydration; 1.5 weight loss. Mildly underconditioned. AXR unremarkable. Patient given SQ fluids, cerenia, mirataz. CBC/Chem revealed severe liver disease and thrombocytopenia. Patient is now acting clinically normal. No evidence of spontaneous bleeding at this point.

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: Platelet est 30-50k; retics 20.9; ALT 3354; AST 178; ALP 352; chol 370; Spec cPL WNL

**BREED**

Shiba Inu

**Urinary System**

**SEX**

MN

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 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 was noted.

**AGE**

13 years

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 1.0 cm in diameter.

The area of the aortic trifurcation was free of pathology.

**WEIGHT**

15.6 lbs.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The bilateral kidneys exhibited mild nonuniform increased cortex echogenicity and mild to moderate loss of corticomedullary symmetry and definition expected for the age of the patient. Minor pyelectasia was present in both kidneys. The left kidney measured 4.9 cm in length. The right kidney measured 3.9 cm in length.

**INTERPRETED BY**

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

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.48 cm width at the caudal pole and 0.49 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.40 cm width at the caudal pole.

**IMAGING PERFORMED BY**

Pamela Harrigan, RDCS

**HOSPITAL NAME**

Norfolk County VS

**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.

**REFERRING VET**

Meridith Leoni, DVM

**Liver/ Gallbladder**

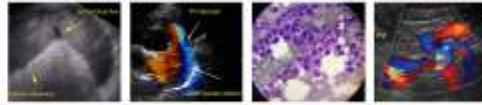
**INVOICE**

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The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. Mildly dilated hepatic vasculature secondary to sedation was present. The gallbladder was non-distended in size with mild, congealed, nonmineralized gallbladder debris primarily in the gallbladder neck and cystic biliary duct.

**DATE**

1/6/22



**PATIENT**

***Gastrointestinal***

Kenji Morrill

The stomach presented intact wall layering with a normal wall layer ratio. Potential minor retained anechoic fluid and chyme were present. The gastric body wall width measured 0.40 cm.

**SPECIES**

Canine

The small intestine presented intact wall layering and maintained a 1:3 muscularis/mucosa ratio with intermittent mild jejunal mucosal speckling. The duodenum wall width measured 0.36 cm. The jejunum wall width measured 0.34 cm.

**BREED**

Shiba Inu

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

**SEX**

MN

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia. The pancreas is likely consistent with age-related pancreatic changes and considered incidental.

***Free Abdomen***

**AGE**

13 years

No overt lymphadenopathy or peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

15.6 lbs.

***Primary Findings***

- Subjectively benign hepatopathy
- Mild congealed gallbladder debris (non-mucocele)
- Mild / moderate chronic renal changes with mild bilateral pyelectasia
- Possible mild gastric hypomotility
- Segmental mild jejunal mucosal speckling

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DABVP (Canine and  
Feline)

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The pyelectasia in both kidneys may be owing to chronic renal changes, potential pelvic scarring possibly owing to previous calculi passage, IV fluid therapy (if applicable). Urine C/S and protein:creatinine ratio on sterile urine sample is recommended.

**IMAGING**

**PERFORMED BY**

Pamela Harrigan, RDCS

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No overt evidence of structural gastrointestinal pathology was noted. The segmental mild jejunal mucosal speckling is nonspecific and may indicate a patient or age-related variant, yet at times has been associated with enteritis or potential Inflammatory enteropathy.

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Meridith Leoni, DVM

Considerations for the liver may include vacuolar hepatic changes, hepatotoxic insult, and nonclinical cholestasis, given the ALP elevation with primary concern for nonspecific hepatitis (infectious, immune-mediated, etc.), given the primarily elevated and significant ALT / AST combination.

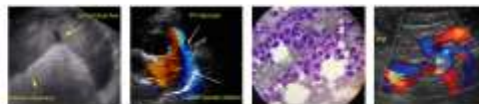
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Further assessment, assuming normal clotting status, may include hepatic FNA for screening cytology primarily to assess for evidence of inflammatory cells +/- Leptospirosis titer / PCR if clinically indicated. No overt evidence of hepatic neoplastic criteria, which is considered a less likely differential diagnosis.

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A GI panel to include PLI/TLI/Cobalamin/Folate and three view chest radiographs may be considered given the patient's mild weight loss to rule out occult pathology. Hepatosupportive medications and as-needed gastrointestinal support are recommended.

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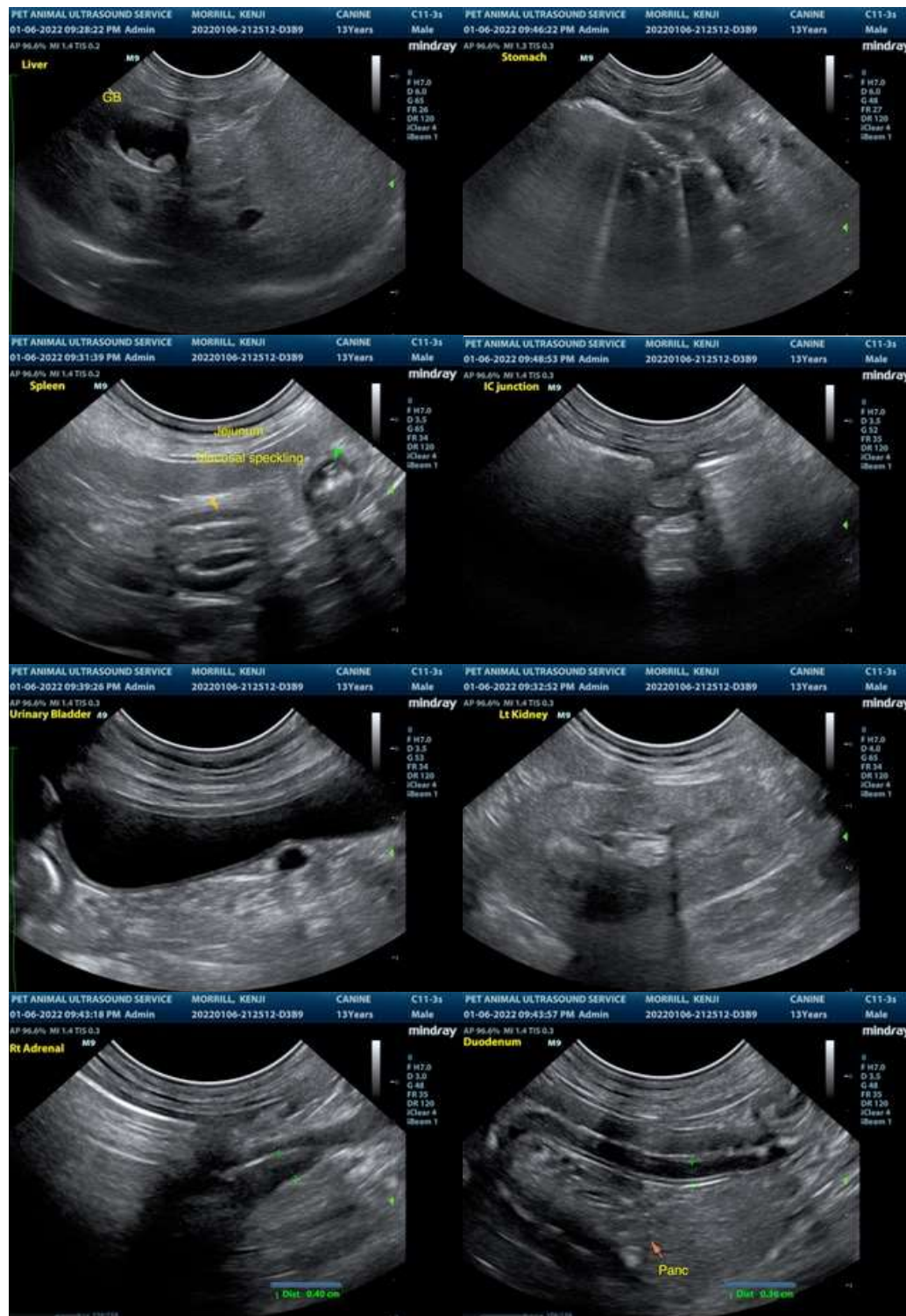
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)**  
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