



PATIENT

Millie Boardman

SPECIES

Canine

BREED

Minature Pinscher

SEX

SF

AGE

14 years 3 months

WEIGHT

10 lbs.

PRESENTING CLINICAL SIGNS

Pre-dental bloodwork revealed elevated liver values. Non painful on abdominal palpation, o reports no lethargy or inappetance. Exam unremarkable aside from marked dental disease. During ultrasound, pt started having increased respiratory effort with abdominal component and mild wheezing. Color remained good but concern for respiratory distress based off of pt clinical signs. Radiographs taken and showed mild-moderate tracheal inflammation with no obvious metastasis noted

Abnormal PE/Chem/CBC/UA Results: Elevated liver values AST (SGOT) 88IU/L (15-66) HIGH ALT (SGPT) 173IU/L (12-118) HIGH Alk Phosphatase 229IU/L (5-131) HIGH GGT 18IU/L (1-12) CHOLESTEROL 333mg/dL TRIGLYCERIDE 704mg/dL PrecisionPSL 224U/L

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. Anechoic urine was present in the lumen with no uroliths, sediment, or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

The area of the aortic trifurcation was free of pathology.

INTERPRETED BY

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

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 3.4 cm in length. The right kidney measured 4.1 cm in length.

IMAGING PERFORMED BY

Dr. Emma Herdener

Adrenal Glands

No overt pathology was noted In the area of the left or right adrenal glands.

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.

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Eastgate VC

REFERRING VET

Dr. Emma Herdener

Liver/ Gallbladder

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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. The gallbladder was non-distended in size with minor, echogenic, nonmineralized, primarily dependent gallbladder debris. 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.



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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.

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

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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. Potential for low-grade or chronic pancreatitis may be present yet ultrasonographically normal. Correlation with clinical signs suggested.

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Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

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ULTRASONOGRAPHIC FINDINGS

WEIGHT

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Primary Findings

- Hepatopathy - subjectively benign
- Minor gallbladder debris (non-mucocele)

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Secondary Findings

- Mild chronic renal changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

IMAGING PERFORMED BY

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The appearance of the liver was nonspecific but most consistent with benign hepatopathy. Considerations for the liver may include benign vacuolar hepatopathy in light of the elevated ALP or inflammatory hepatic disease in light of the elevated ALT. No overt evidence of hepatic neoplasia which is considered unlikely. Ultrasound guided FNA of the liver using a 25-gauge needle and assuming normal coagulation parameters would be warranted for screening cytology, primarily to assess for evidence of inflammatory cells and to rule out unlikely neoplasia. Hepatosupportive medications such as Denamarin or Vitamin E as well as Ursodiol due to its antioxidant and immunomodulatory effects within the liver would be warranted, although these medications may not result in decreased hepatic enzyme levels. Reassessment of hepatic enzymes following dental cleaning would also be appropriate. If persistent hyperlipidemia, fasting cholesterol and triglyceride levels may be indicated.

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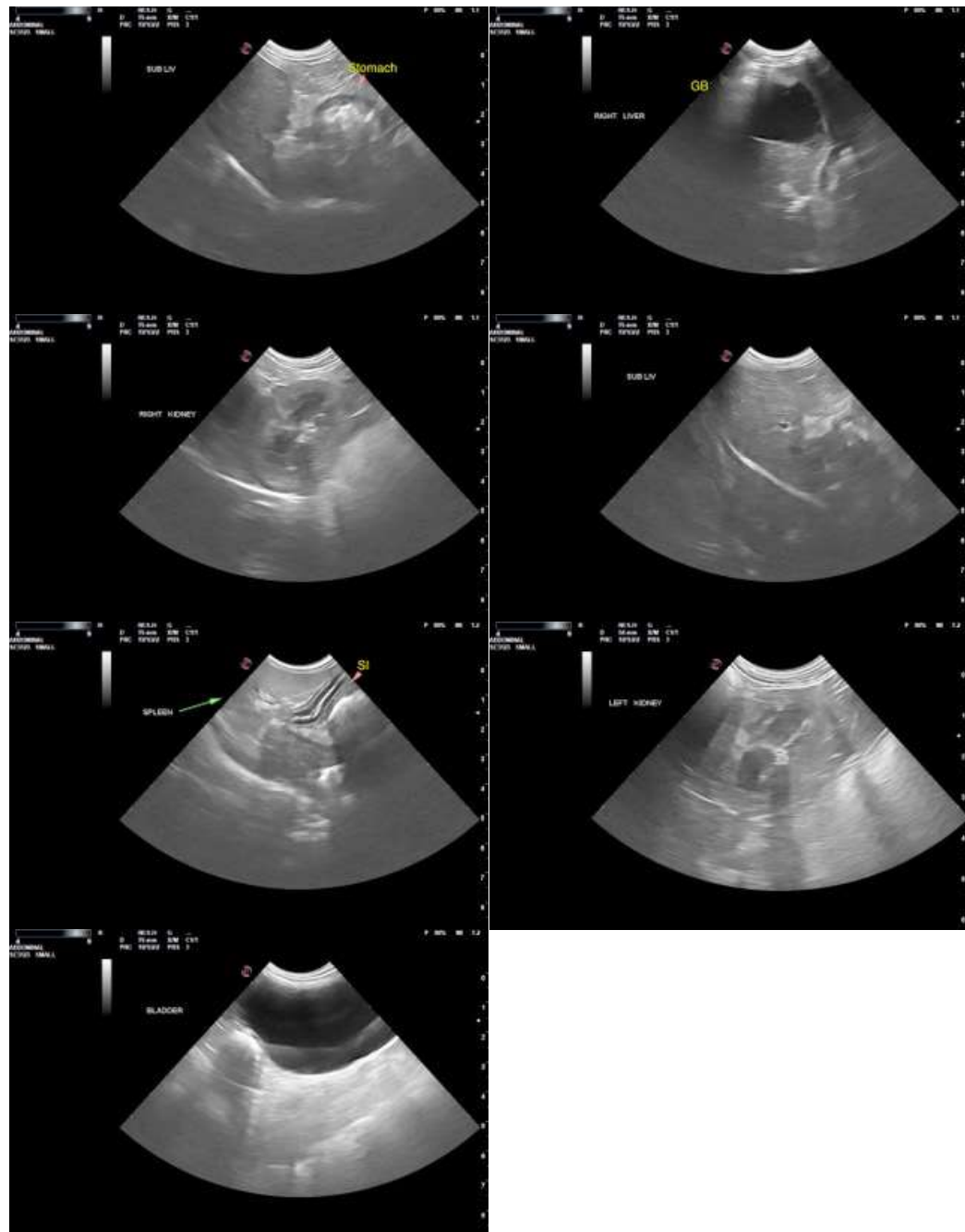
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.



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