



**PATIENT**

Jax Christner

**PRESENTING CLINICAL SIGNS**

Chronic, intermittent diarrhea for years.  
Abnormal PE/Chem/CBC/UA Results: Mildly elevated ALT recently

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**BREED**

Maltese X

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal.

**SEX**

Neutered Male

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The right kidney measured 4.27 cm.

**AGE**

7 Years

**Adrenal Glands**

**WEIGHT**

9.4 Pounds

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 1.84 cm x 0.33 cm at the cranial pole and 0.32 cm at the caudal pole. The left adrenal gland measured 2.19 cm x 0.45 cm at the caudal pole and 0.37 cm at the cranial pole.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**Spleen**

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

**IMAGING PERFORMED BY**

Dr. Michelle Bartus

**Liver**

**HOSPITAL NAME**

Valley Vet Service

The **liver** was subnormal in size and presented heterogenous parenchyma with increased portal markings and coarse architecture. Slight undulating capsular contour was noted. The gallbladder and common bile duct were unremarkable. This is consistent with chronic inflammatory hepatopathy.

**REFERRING VET**

Dr. Michelle Bartus

**Gastrointestinal**

The **gastrointestinal** presentation revealed mild uniform prominence of the gastric mucosa as well as areas of "ropey" small intestinal wall with slight disruption of the normal 1:3 muscularis/mucosal ratio. The stomach and small intestine were empty. The intestinal submucosa was slightly irregular, thickened and hyperechoic suggestive of low grade, chronic disease. No concerning lymphadenopathy was visible. No evidence of obstruction was present. Chronic inflammatory bowel disease is likely with a low possibility of an early neoplastic event such as lymphoma. Full thickness tissue biopsies via open laparotomy, ideally guided by intraoperative ultrasound in order to obtain the most representative mural sample, would be necessary to rule out this possibility.

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**PATIENT**

**Pancreas**

Jax Christner

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

**SPECIES**

Canine

**ULTRASONOGRAPHIC FINDINGS**

- Minor intestinal thickening – inflammatory bowel likely.
- Non-specific chronic inflammatory hepatopathy, mild microhepatica – suspect reactive hepatopathy.

**BREED**

Maltese X

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**SEX**

Neutered Male

Ultrasound guided FNA of the liver could be considered for further definition of inflammatory cell type or core biopsy could be justified for structural evaluation. No evidence of neoplasia. A clinical trial of a hydrolyzed diet could be considered given the GI signs along with the chronic inflammatory hepatopathy with 10 days Enrofloxacin/Metronidazole combination, nutraceuticals, and reassessment of the liver values and GI signs. Otherwise, sampling would be necessary for further definition. Reactive hepatopathy may be playing a role owing to antigen surveillance issues.

**AGE**

7 Years

**WEIGHT**

9.4 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS



**IMAGING PERFORMED BY**

Dr. Michelle Bartus



**HOSPITAL NAME**

Valley Vet Service

**REFERRING VET**

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**SPECIES**

Canine

**BREED**

Maltese X

**SEX**

Neutered Male

**AGE**

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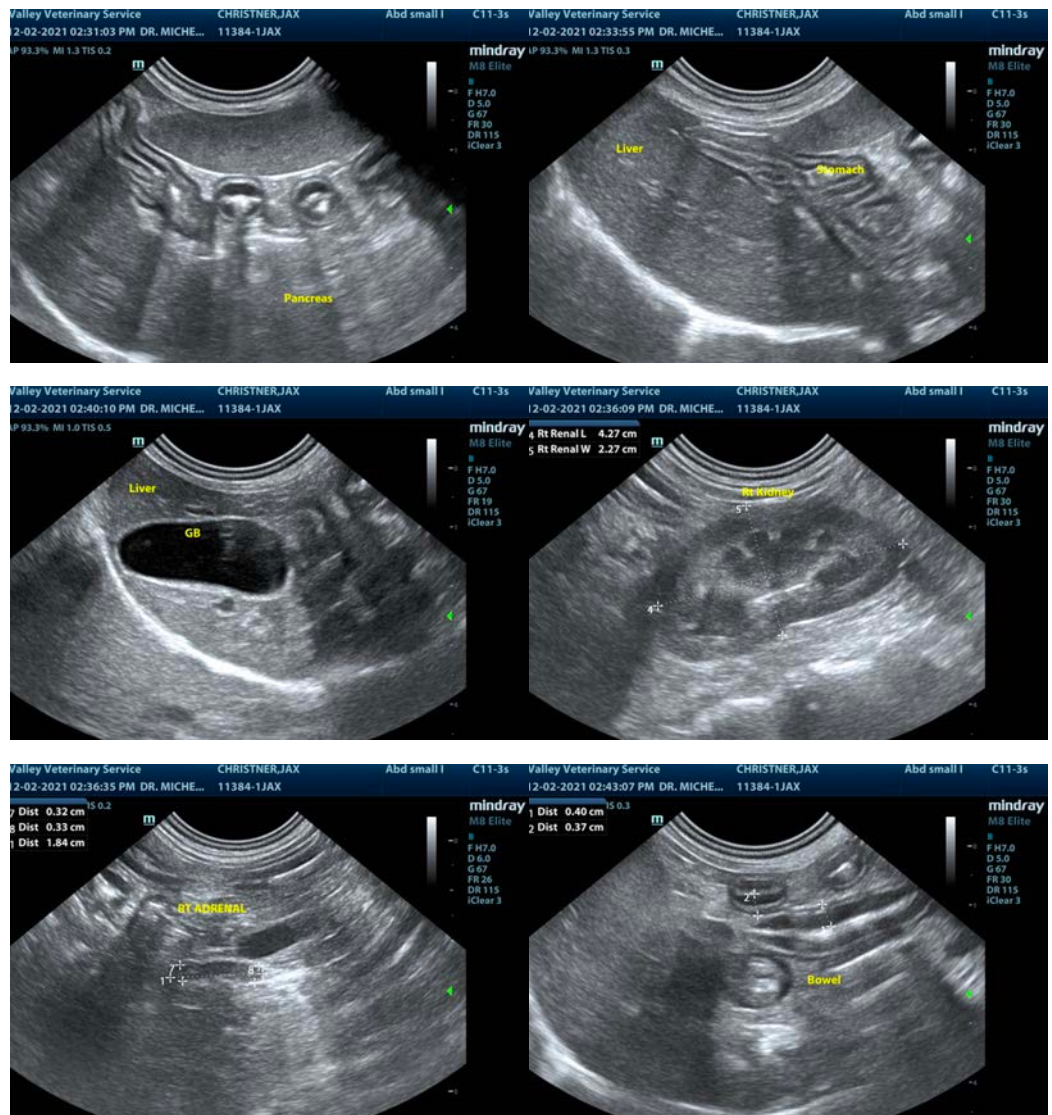
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com**  
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