



**PATIENT PRESENTING CLINICAL SIGNS**

Luna Rodriguez

Vomiting for 2 days Anorexia  
Abnormal PE/Chem/CBC/UA Results: Icteric Vomiting Radiograph–small-sized liver Blood work–elevated ALT, elevated ALP, elevated GGT, bilirubin 19.6, PCV 67.5

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED**

Shih Tzu

**Urinary System**

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**

Spayed Female

The **kidneys** were mildly swollen. Minor microcystic changes noted. The right kidney measured 4.6 cm. The left kidney measured 4.1 cm.

**AGE**

3

**Adrenal Glands**

The **adrenal glands** were visualized obliquely and appeared unremarkable.

**WEIGHT**

10.6

**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.

**INTERPRETED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

**Liver**

The **liver** was mildly subnormal in size with increased portal markings. Increased gallbladder wall thickening. Intrahepatic vascular volume appeared to be normal, which is a negative predictor factor for portosystemic shunting. Curvilinear patterns were maintained. No obvious intrahepatic shunts noted. The portal vein was of normal volume at 5.0 mm. Vena cava was of normal size. Portal vein to vena cava ratio was 1:1.

**IMAGING PERFORMED BY**

Dr. Sharkaway

**HOSPITAL NAME**

Kew Gardens AH

**Gastrointestinal**

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

**REFERRING VET**

Dr. Sharkaway

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**Pancreas**

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.

**DATE**

6/14/23

**ULTRASONOGRAPHIC FINDINGS**

- Cholangitis liver pattern, no evidence of portosystemic shunting, however likely subnormal liver size
- Mildly swollen kidneys



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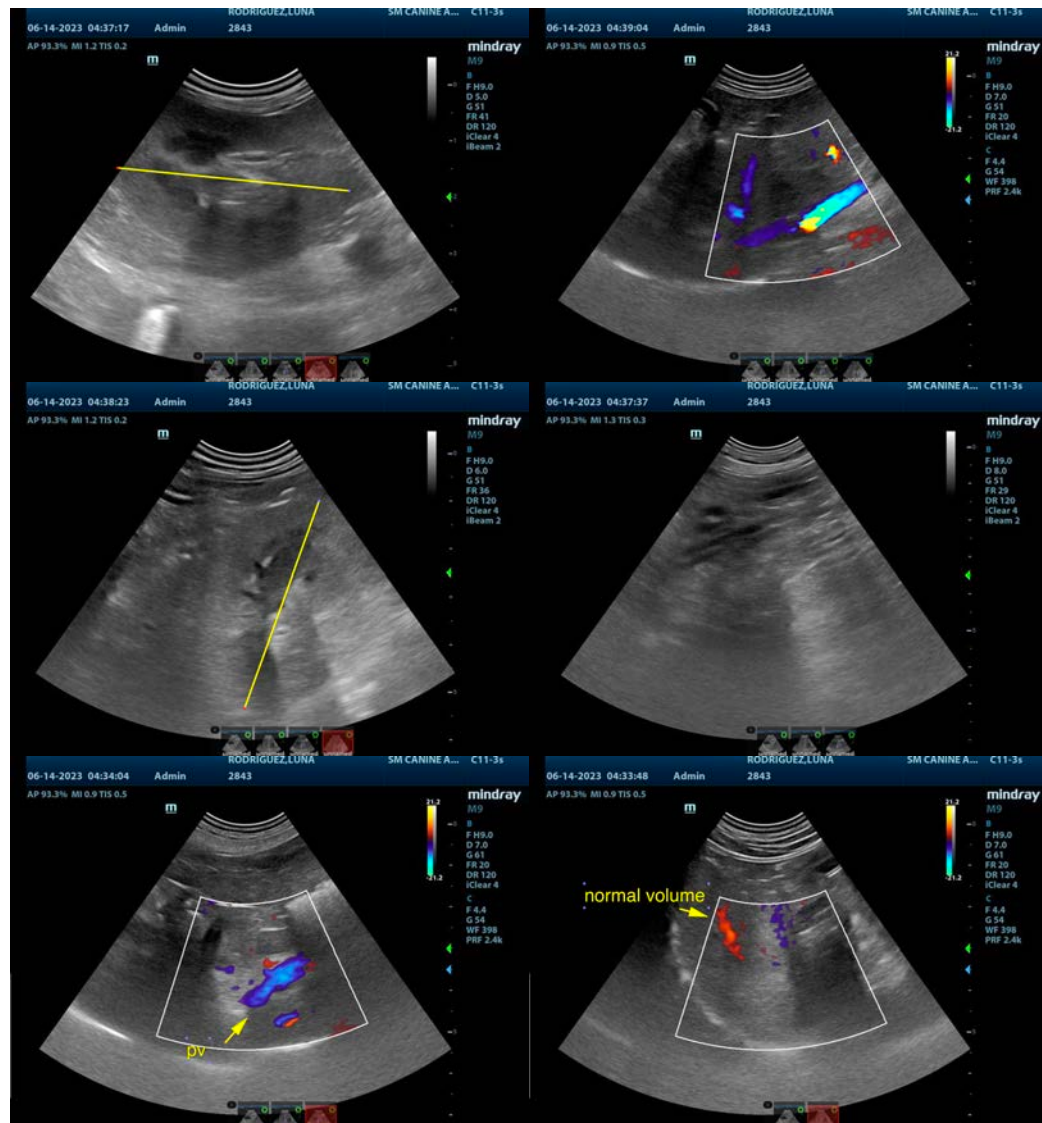
**DATE**

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Bile acid profile warranted if not already performed. Leptospirosis titers warranted and assessment for other history that would be fitting for cholangitis. Liver biopsy and culture would be ideal. Ampicillin/Metronidazole, nutraceuticals indicated. Further treatment should be based on liver biopsy results.

*Radiographs: Microhepatica, unremarkable abdomen otherwise.*





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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.

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

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