



PATIENT

Emma Hanna

SPECIES

Canine

BREED

Labradoodle

SEX

Spayed Female

AGE

5 Years 8 Months

WEIGHT

23.7 kg

INTERPRETED BY

Eric Lindquist, DMV,
DABVP (CFM), Cert.
IVUSS

IMAGING PERFORMED BY

Dr. Kirsten Henderson

HOSPITAL NAME

Riverside Small Animal
Hospital

REFERRING VET

Dr. Kirsten Henderson

INVOICE

73139

DATE

2/20/26

PRESENTING CLINICAL SIGNS

Referral ultrasound. Had a dizzy spell (undiagnosed syncope vs neurological) event Dec 31. Noted mildly elevated ALT on bloodwork (269) which did not improve with a month worth of Zentoni. Bile acids were moderately elevated at 37 (preprandial) and 47 (postprandial). Has not had another "dizzy" spell since.

PE: BAR. Eyes and ears clean and clear. Mild hyperkeratosis of nasal planum, no crusting oozing or cracking. Heart normal rhythm, no murmur, pulses strong and synchronous. Lungs clear bilaterally. Abdomen no pain or masses. Healthy coat. Diffuse scant gingivitis but minimal tartar (had anesthetic free dental cleaning previously).

Sending off a protein C test to help rule out a portosystemic shunt. If protein C is normal or high and the radiologist does not appreciate a vascular (or other) abnormalities on imaging, then a liver biopsy would be the next step.

Abnormal PE/Chem/CBC/UA Results: PT/PTT: normal Noted mildly elevated ALT on bloodwork (269) Bile acids were moderately elevated at 37 (preprandial) and 47 (postprandial)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

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.

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. Left kidney measured 6.0 cm. Right kidney measured 5.6 cm.

Adrenal Glands

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. Right measured 0.60 cm. Left measured 0.53 cm.

Spleen

The **spleen** was folded upon itself cranially. It 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.



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Liver

The **liver** presented normal size and contour with occasional hyperechoic lipid plaque noted. The gallbladder and common bile duct were unremarkable. Slight increased portal markings noted. The visible portal vein measured up to 8.0 mm.

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.

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.

ULTRASONOGRAPHIC FINDINGS

- Structurally unremarkable abdomen with folded spleen.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Idiopathic bile acid elevation. Portal hypoplasia/microvascular dysplasia or spurious elevation possible. No overt evidence of portosystemic shunting nor suspicion of it. No evidence of abdominal disease directly related to the clinical history. An echocardiogram and holter monitor would be warranted to assess for paroxysmal arrhythmia that may not have been present during clinical exam. Full CNS examination +/- skull CT would be appropriate depending upon clinical exam.

Hepatic Support for Bile Acid Elevation +/- Hepatic Encephalopathy

Royal Canin Hepatic Support diet or Hills L/D, Metronidazole (7.5 mg/kg PO bid) over the next 14 days, **Lactulose** (Oral: 3.1-3.7 g/5 ml lactulose in a syrup base) long term to target 2-3 soft stools/day, with a **high-quality protein supplement** of minor amount of **yogurt** or **cheddar cheese**. Monitor bile acids, with attention paid to dropping albumin, BUN or cholesterol. **SAME** and nutraceuticals as needed. **Ursodiol** (10-15 mg/kg p.o. q24h) can be considered as hepatoprotectant and to enhance bile flow. **Zinc** serum level keep between 200–500 ug/dl. If deficient then Tx zinc acetate 1-3 mg/kg/day. Gastrointestinal protectants are recommended if the patient is anorexic.



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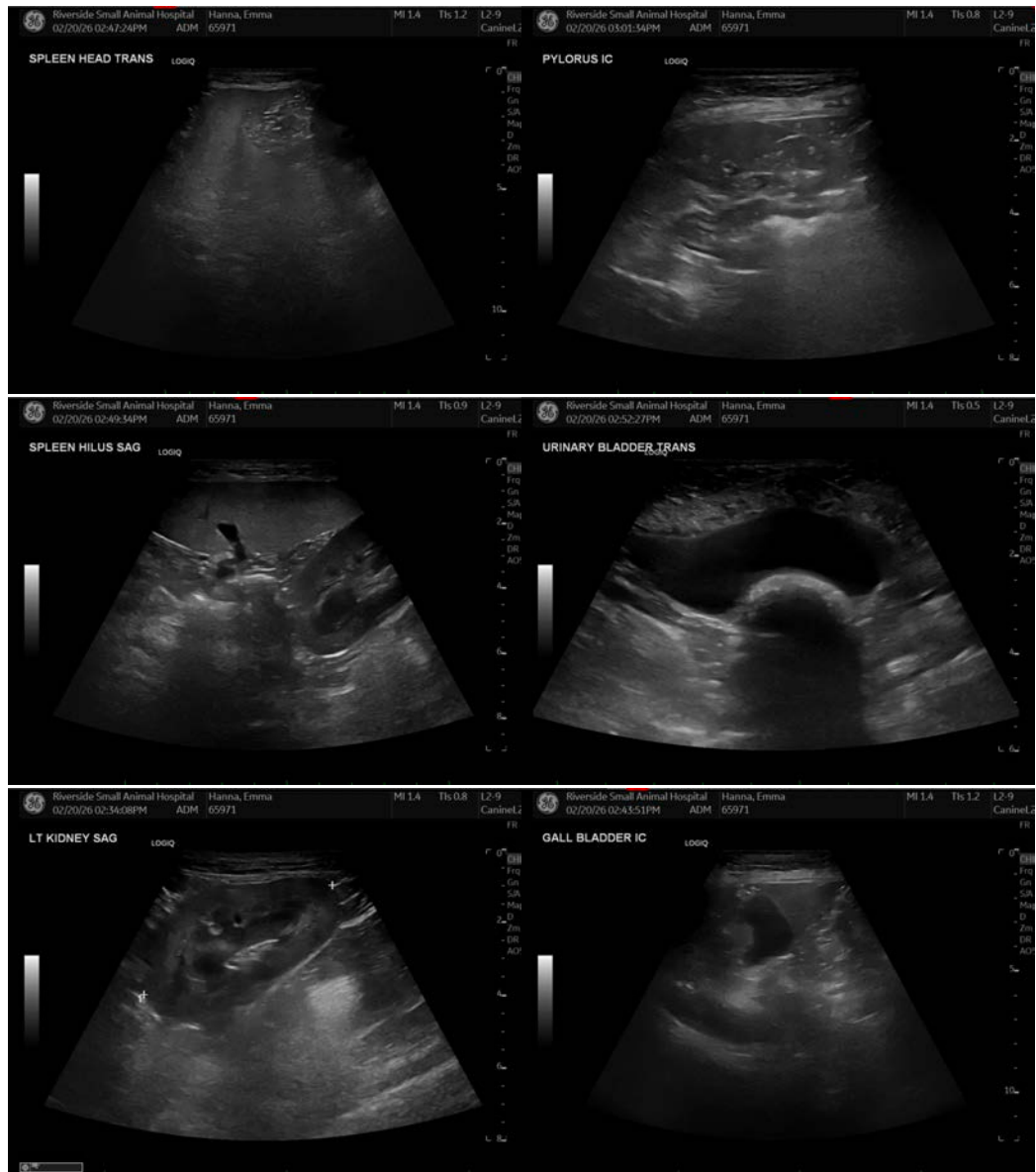
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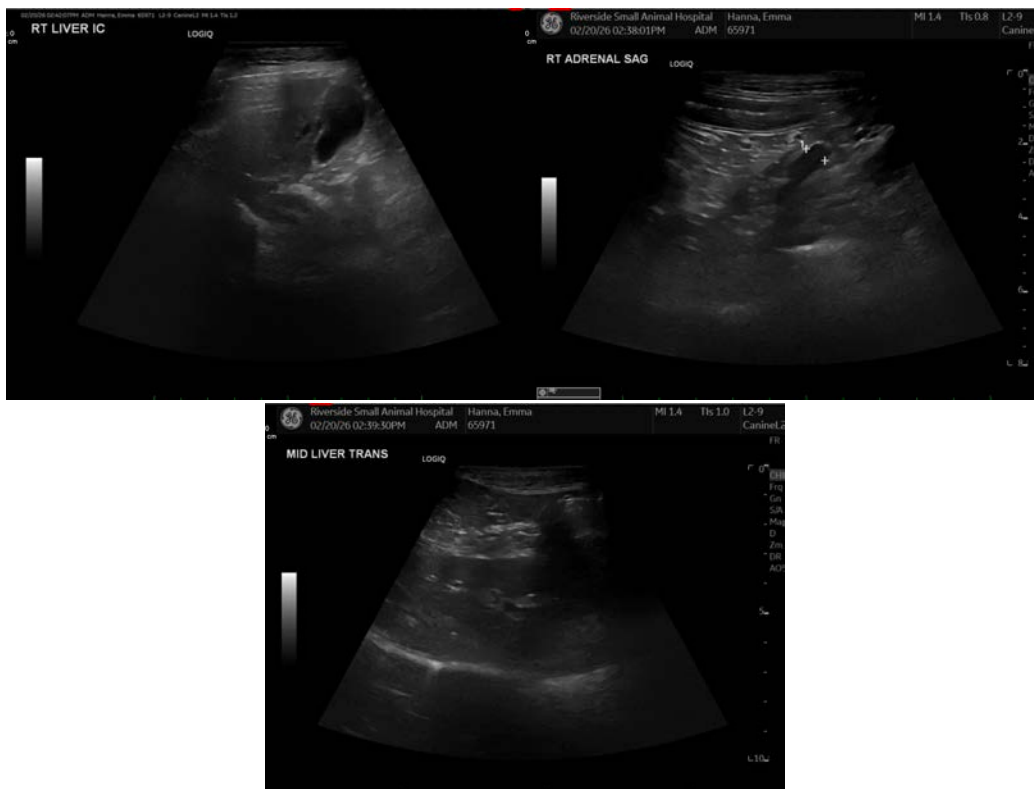
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP(CFM), Cert. IVUSS,
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