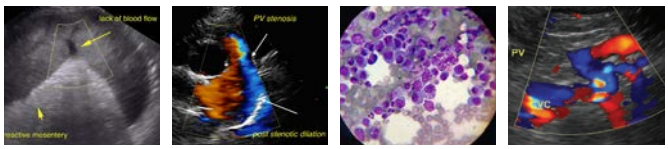
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com™
1-800-838-4268 info@sonopath.com

PATIENT
Lucy Thompson

SPECIES
Canine

BREED
Yorkshire Terrier

SEX
Female

AGE
11 Months

WEIGHT
3 Pounds

INTERPRETED BY
Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY
Dr. Brita Kiffney

HOSPITAL NAME
Northshore VH

REFERRING VET
Dr. Brita Kiffney

INVOICE
40735

DATE
8/24/22

PRESENTING CLINICAL SIGNS

Lucy is an 11 month old female intact 3# yorkie who presented shortly after adoption for a wellness exam. Spay was discussed at exam 7/28/22 and lab work was run for pre-anesthetic screening. ALT was elevated (see below) and follow up bile acids testing was abnormal (see below). Concern for congenital shunt vs other hepatopathy, congenital vs infectious vs metabolic vs other. 7/28/22 cbc/chem10/4dx: ALT 200, remainder WNL 8/8/22 bile acids test, fasted: Pre 4.1 normal, Post 44.3 elevated Pending Protein C

Abnormal PE/Chem/CBC/UA Results: 7/28/22 cbc/chem10/4dx: ALT 200, remainder WNL 8/8/22 bile acids test, fasted: Pre 4.1 normal, Post 44.3 elevated Pending Protein C retained deciduous canines

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. The right kidney measured 3.54 cm. The left kidney measured 2.82 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. The right adrenal gland measured 0.41 cm. The left adrenal gland measured 0.39 cm at the caudal pole and 0.26 cm at the cranial pole.

Spleen

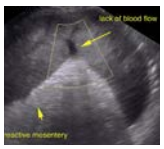
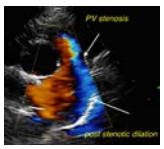
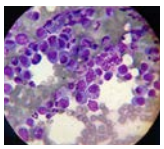
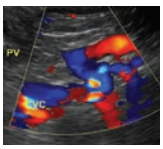
The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or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

Liver

The **liver** was normal to slightly subnormal in size, parenchyma was uniform. The gallbladder and common bile duct were unremarkable. Portal vein branching was normal. Portal vein to vena cava ratio was approximately 0.9:1.0. Portal vein measured 0.40 cm. Vena cava measured 0.45 cm. No evidence of intrahepatic or extrahepatic shunting.

Gastrointestinal

A minor amount of non-shadowing, non-obstructive ingesta was noted in the **stomach**. Transit of chyme into the small intestine was normal. Curvilinear patterns were maintained throughout the GI tract. No evidence of pathology. Small and large intestine demonstrated normal luminal chyme and stool

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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

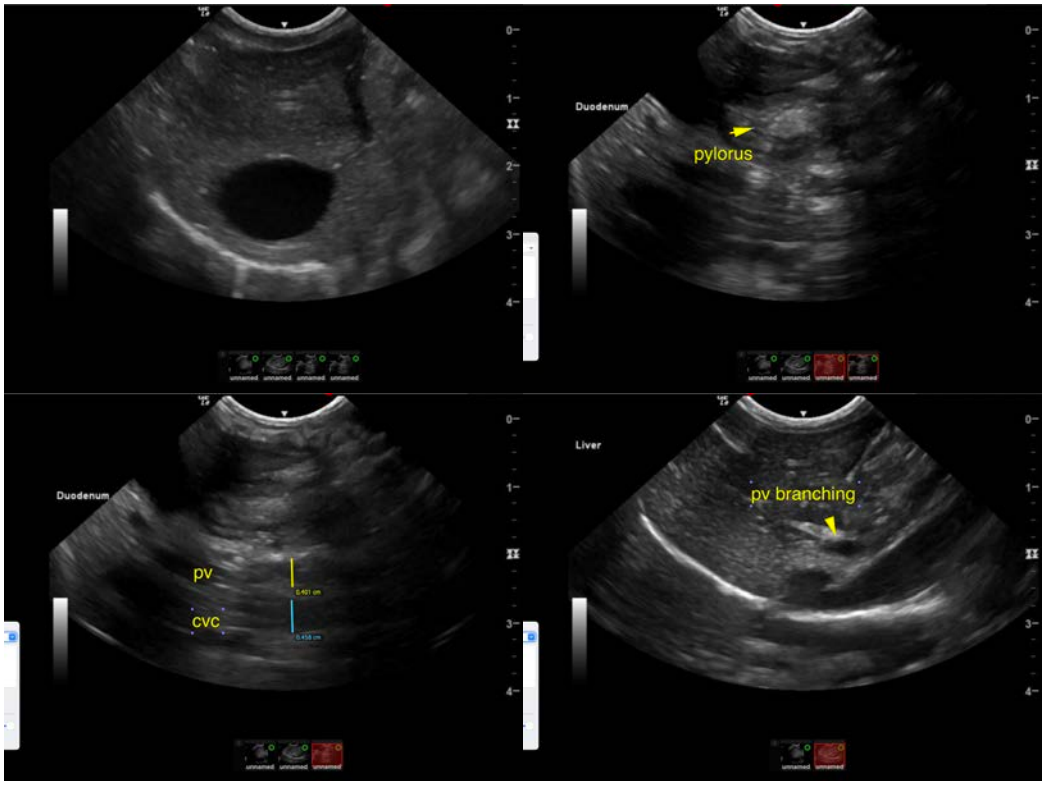
- Normal abdomen with full stomach

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Portal hypoplasia possible, would necessitate core liver biopsy.

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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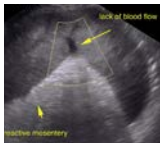
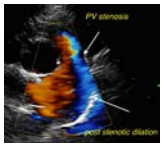
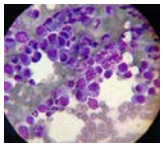
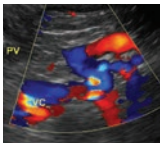

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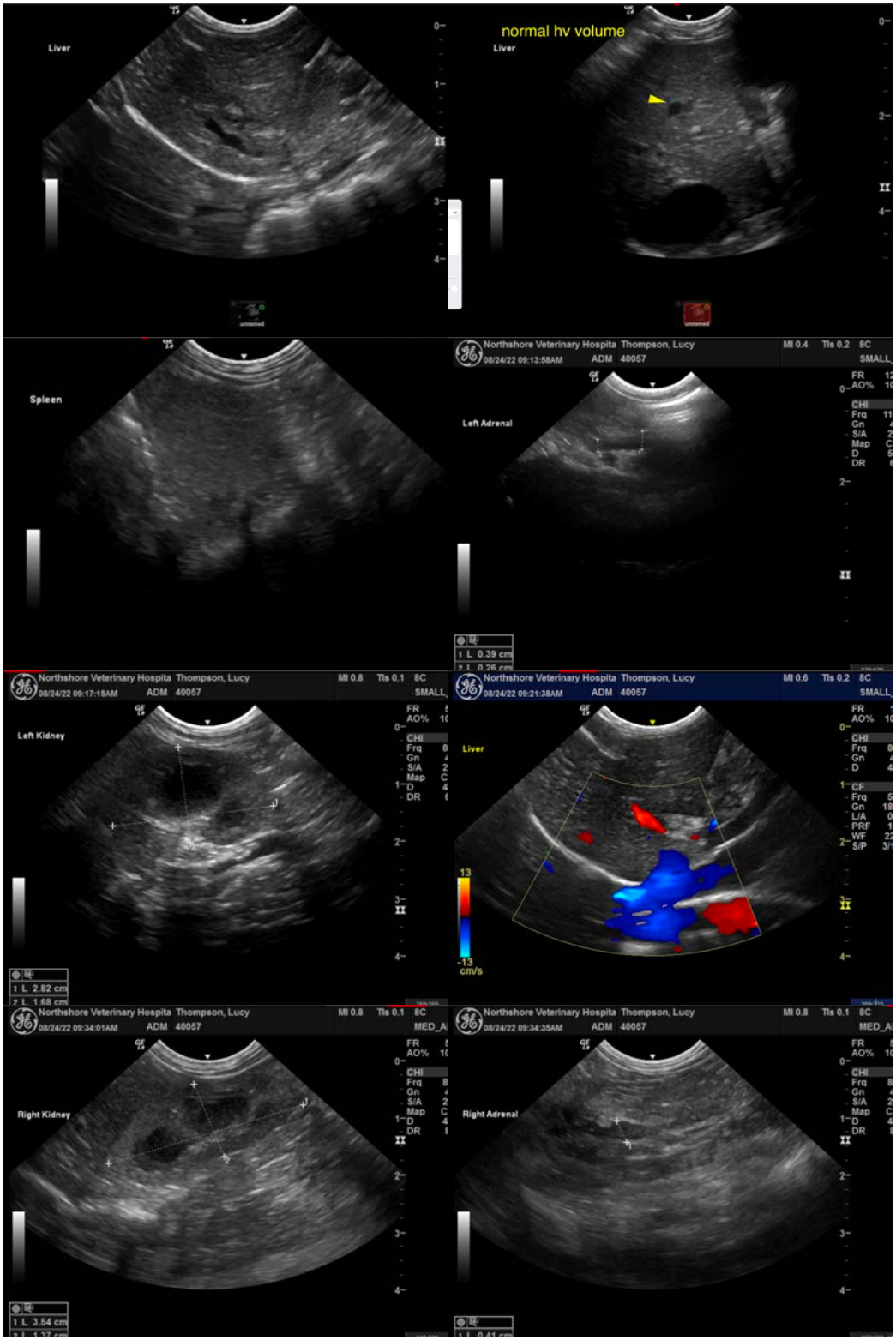

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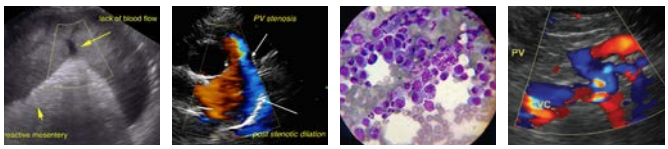

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

info@SonoPath.com