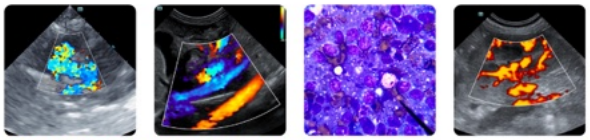


PATIENT

Aster Jimenez

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

Neutered male

AGE

1 year

WEIGHT

4.2 lbs

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Gabriel Ferrer, DVM

HOSPITAL NAME

Pulse Pet Ultrasound Services

REFERRING VET

Dr. Davila

INVOICE

69204

DATE

12/1/25

PRESENTING CLINICAL SIGNS

History: Pt presented as a referral for an abdominal ultrasound for a definite diagnosis of portosystemic shunt. 3 weeks ago pt had an episode of disorientation and drooling, loss of balance in hindlimbs. Then occurred again 1 day ago, coincidently both episodes happened after a meal. Pt is currently on Lactulose, Metronidazole and Hepatic diet.
Abnormal PE/Chem/CBC/UA Results: Fecal: None Seen CBC: wnl SMA: Increased BUN, ALT; decreased CHOL, AMYL NH3: increased Bile acids: >180.0

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. The bladder revealed calculi that measured up to 0.27 cm and urethral sand. No evidence of inflammatory or neoplastic changes was 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. Slight pinpoint mineralization was noted. The left kidney measured 3.25 cm. The right kidney measured 3.6 cm.

Adrenal Glands

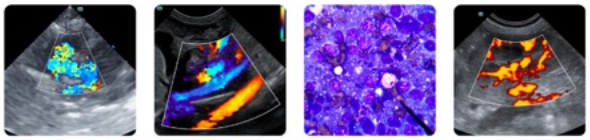
Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 1.26 x 0.41 cm at the caudal pole and 0.33 cm at the cranial pole. The right adrenal gland measured 1.25 x 0.3 cm at the caudal pole and 0.27 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 was noted.

Liver

The **liver** was subnormal in size. The vena cava was enlarged and measured 0.71 cm, portal vein measured 0.53 cm and aorta 0.6 cm. Turbulence was noted in the vena cava. Prior to the portal hilus, in



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the position of a splenocaval shunt an abnormal 0.45 cm dorsally directed vessel was present and presumed to enter into the vena cava given the enlarged vena cava. However, a portion of the vessel appeared to potentially bifurcate. The gallbladder revealed minor excessive debris and over distension.

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

Splenocaval shunt, possible bifurcation.

Bladder and urethral calculi and sand.

Microhepatica.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

CT evaluation for surgical planning is warranted. Surgical consultation is recommended.

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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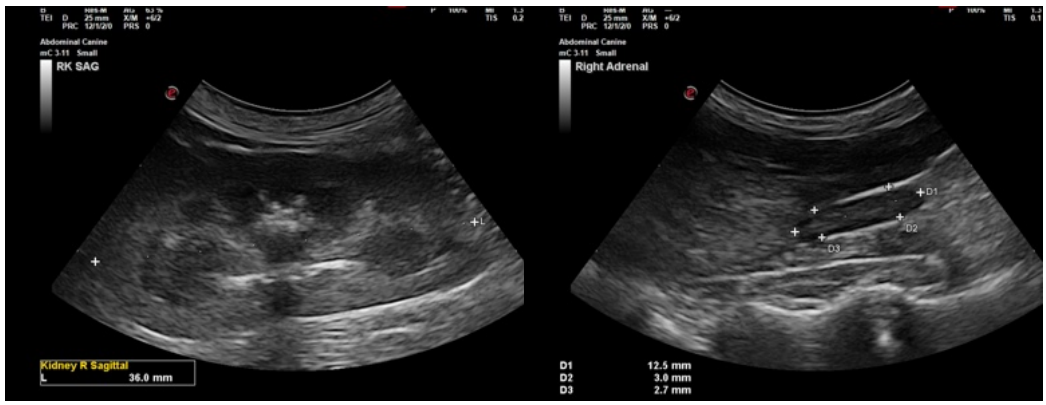

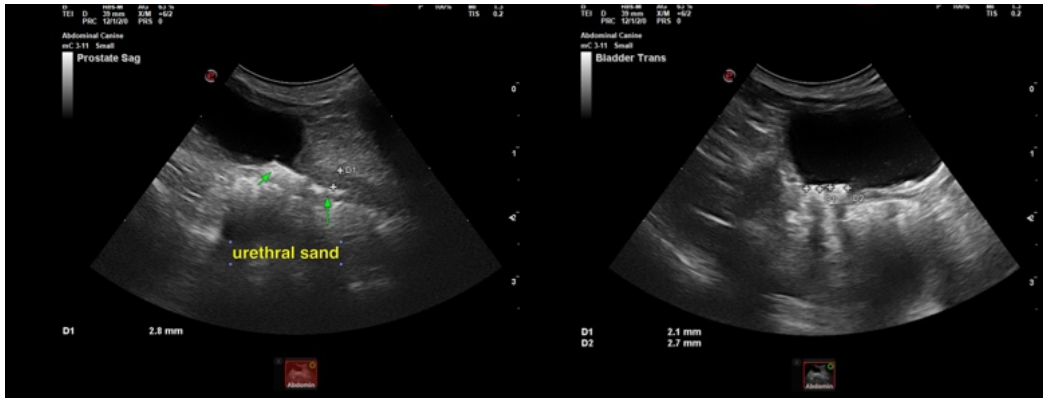

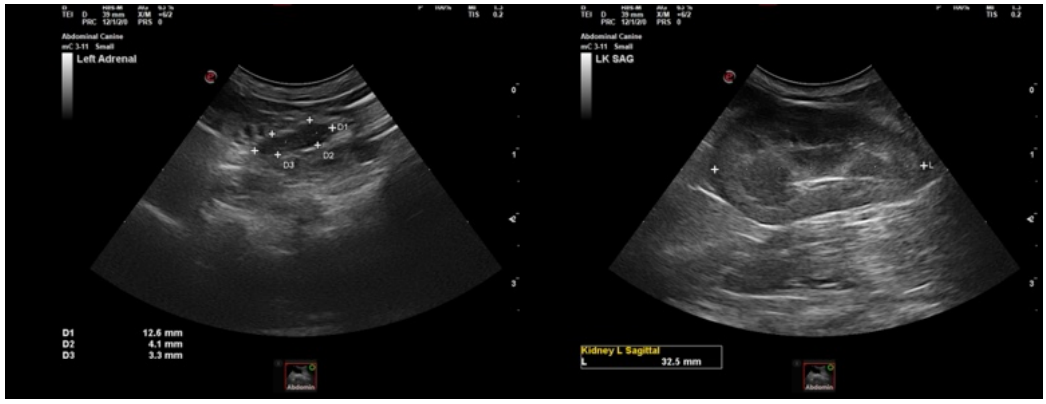

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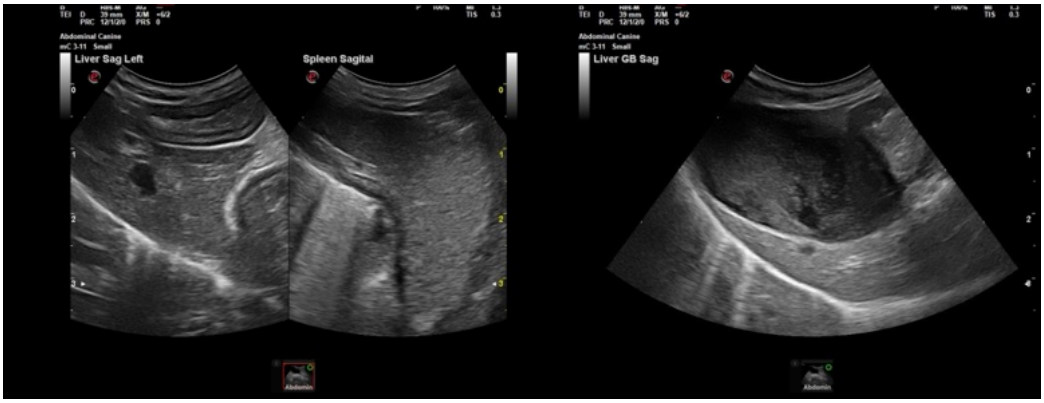

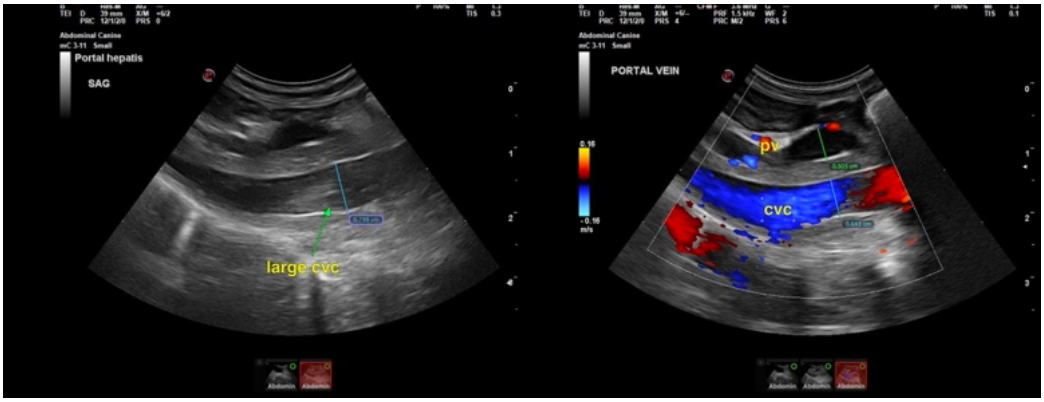

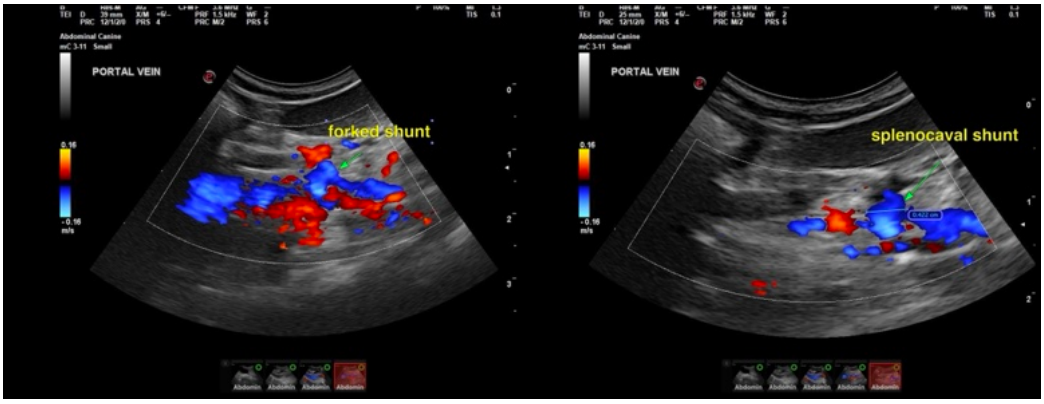

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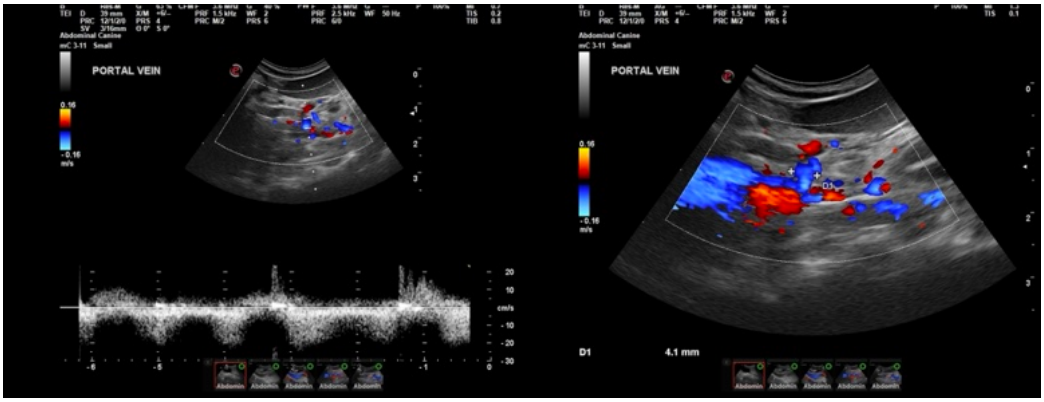

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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, CEO of SonoPath.com

info@SonoPath.com