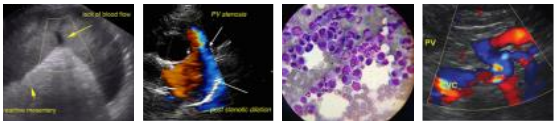


PATIENT

Dos CRAN

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

21 Weeks

WEIGHT

4.5 Pounds

INTERPRETED BY

Eric Lindquist, DMV, DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jenna Walsh, CVT

HOSPITAL NAME

VCA Westmoreland AH

REFERRING VET

Dr. Bogarovich

DATE

10/14/22

Invoice
17716

PRESENTING CLINICAL SIGNS

History: Dx with liver shunt Exam wnl

Abnormal PE/Chem/CBC/UA Results: Current Medications Lactulose 1 ml TID Primary Question/Differential to Be Answered in This Exam Extra vs intra hepatic shunt

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 pelvic urethra was imaged 2.0 cm beyond the cystourethral junction.

The **kidneys** were structurally unremarkable with normal size and contour, however, a distinct hyperechoic medullary rim sign was noted (idiopathic). The left kidney measured 3.56 cm. The right kidney measured 3.72 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 1.2 cm x 0.28 cm. The left adrenal gland measured 0.84 cm x 0.34 cm.

Spleen

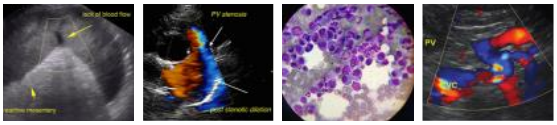
The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or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

Liver

The **liver** was mildly subnormal in size. Intrahepatic vascularity appeared normal with normal hepatic vein inflowing to the vena cava. The vena cava, at the level of the portal hilus, measured 0.4 cm. The aorta, at the level of the portal hilus, measured 0.44 cm. The vena cava to aorta revealed a 1:1 ratio. The portal vein appeared subnormal in size, measuring 0.2 cm. There appeared to be an extra vessel between the vena cava and aorta, suggestive for azygous shunting. The gallbladder and common bile duct were unremarkable.

Gastrointestinal

The **gastrointestinal tract** presented considerable gastric artifact due to the presence of ingesta. This did not permit thorough evaluation of portions of the gastric and upper intestinal structure. No overt abnormality was seen in the visualized tissue, however. This is consistent with a post-prandial presentation within a few hours of mealtime. If the prandial temporal interval does not fit the case history, and the patient presents a history of post-prandial vomiting, this could indicate a delayed



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upper gastrointestinal outflow due to primary or secondary pyloric hypertrophy, upper GI infiltrative disease, motor deficits, or a non-visualized foreign body. A prudent approach would be to rescan this patient at 24 hour NPO status to further review the non-visible regions if stomach primarily as well as assess any delayed outflow issue.

Pancreas

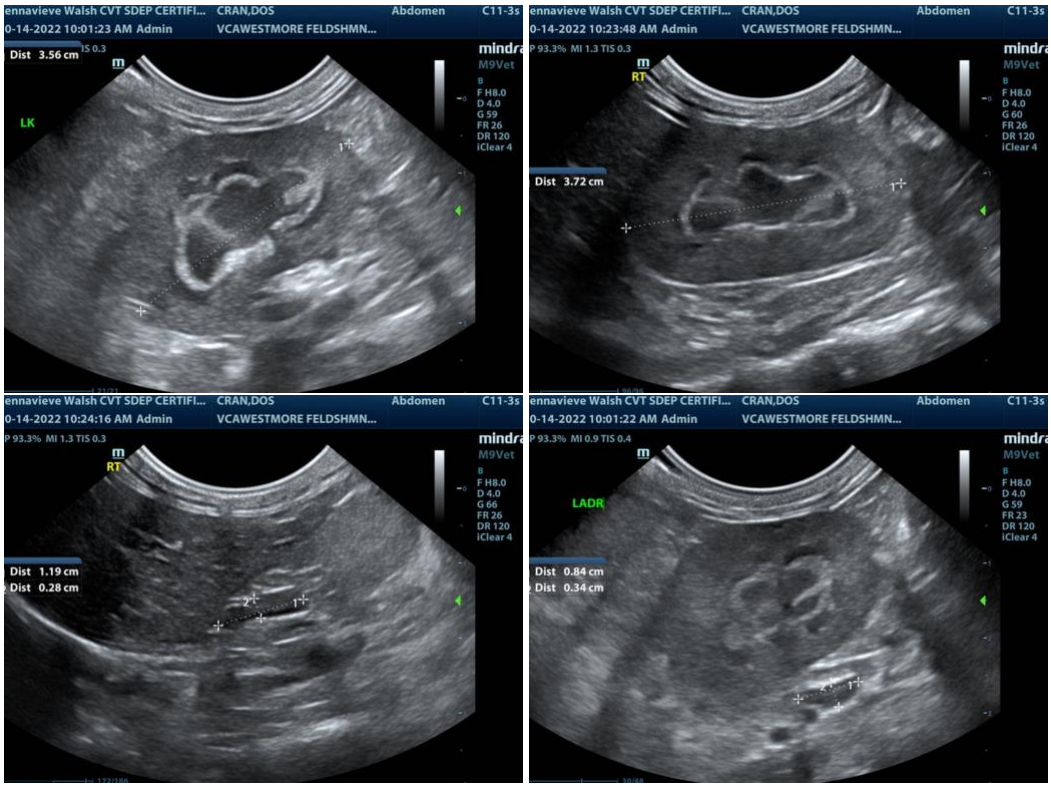
The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

ULTRASONOGRAPHIC FINDINGS

- Subnormal liver size. Small portal vein, normal vena cava to aortic ratio and double aorta sign - strong concern for azygous shunt, however, CT with contrast is recommended for confirmation.
- Medullary rim kidney would suggest abnormal urate metabolism
- Full stomach

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

If bile acids are significantly elevated, then CT with contrast is recommended for further definition.



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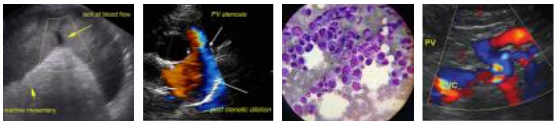

ANIMAL SOUNDS NW
MOBILE VETERINARY ULTRASOUND
IMAGING PERFORMED BY
AnimalSoundsNW.com 541-357-9423

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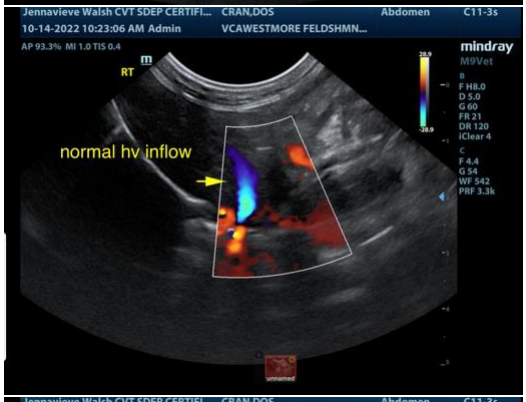

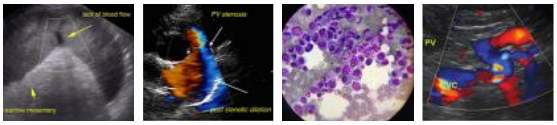

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

info@SonoPath.com