**PATIENT**

Murray Zschesche

**SPECIES**

Canine

**BREED**

Pug

**SEX**

Intact Male

**AGE**

16 weeks

**WEIGHT**

7.9 lbs

**INTERPRETED BY**Eric Lindquist, DMV  
DABVP, Cert. IVUSS**IMAGING  
PERFORMED BY**

Sarah Pender, CVT

**HOSPITAL NAME**

SVS Imaging QC

**REFERRING VET**

Dr. Haenni

**INVOICE**

91849

**DATE**

10/15/19

**PRESENTING CLINICAL SIGNS**

History: Neurologic, ataxic, lethargic at times, not eating-owner force feeding, litter mate 2lbs heavier  
HCT25%, BUN 8.9, PHOS 9.2, TP 4.5, ALB 2.4, ALP 301 Bile Acids pre 447.3 Concern for 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 was noted. Ureteral papillae were normal.

The residual prostate measured 0.4 cm.

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 5.18 cm. The left kidney measured 4.48 cm.

**Adrenal Glands**

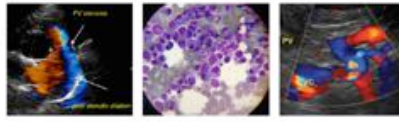
Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.92 x 0.4 cm at the caudal pole and 0.24 cm at the cranial pole. The right adrenal gland measured 1.73 x 0.46 cm at the cranial pole and 0.41 cm at the caudal 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 significantly subnormal in size and subjectively hypovascular. An extrahepatic portosystemic shunt was identified. This is consistent with left gastric shunt. The residual portal vein was exceedingly small at 0.2 cm at the trifurcation in the portal hilus. The vena cava measured 0.5 cm at the level of the portal hilus. The aorta measured 0.5 cm. The shunt decoursed ventrally just caudal to the pylorus and redirected dorsally in the direction of likely azygos termination. The gallbladder and common bile duct were unremarkable.



**PATIENT**

**Gastrointestinal**

Murray Zschiesche

The **stomach** was filled with ingesta. The remainder of the intestinal tract was unremarkable.

**SPECIES**

**Pancreas**

Canine

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.

**BREED**

Pug

**ULTRASONOGRAPHIC FINDINGS**

**SEX**

Suspected gastroazygos shunt.

Intact Male

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**AGE**

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This is most consistent with gastroazygos shunt. However, the dorsal termination of the shunt cannot be identified. The surgeon should be prepared for ameroid constrictor placement for the shunt at maximum width of 0.72 cm just caudal to the pyloric outflow. However, the liver is significantly subnormal in size and there is some risk for secondary portal hypertension after shunt attenuation. Therefore, the patient should undergo a sonogram approximately 4-8 hours post surgery to ensure that there is no evidence of portal hypertension develops post surgery as the residual portal vein is exceedingly small. Liver surgery is recommended, in the meantime, medical management for this patient would be warranted for stabilization. However, note that there is a significant shunt fraction in this patient. Therefore, attenuation may come with complications. Internal medicine management pre and post surgery is recommended.

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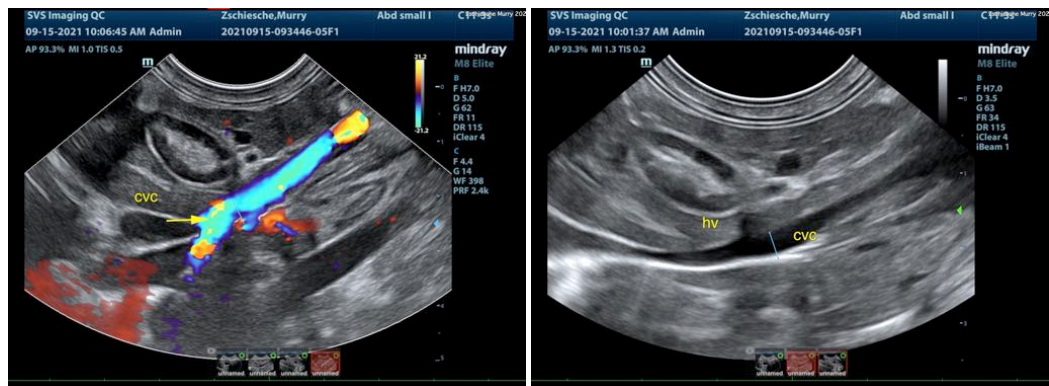
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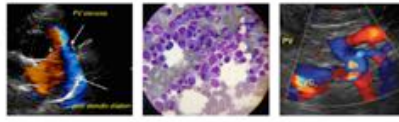
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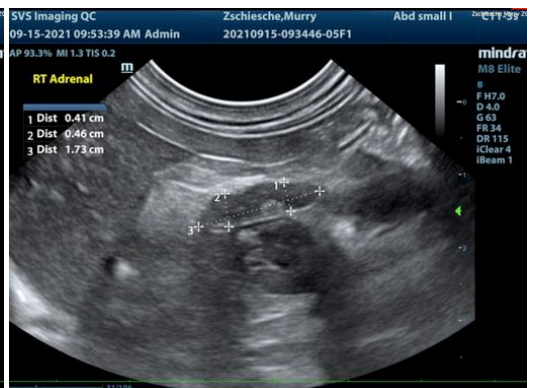
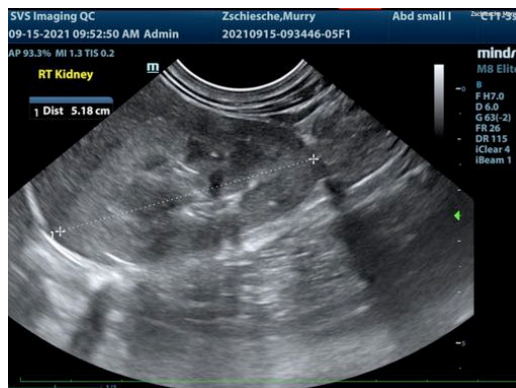
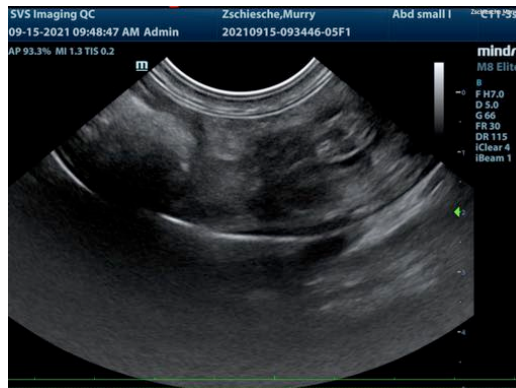
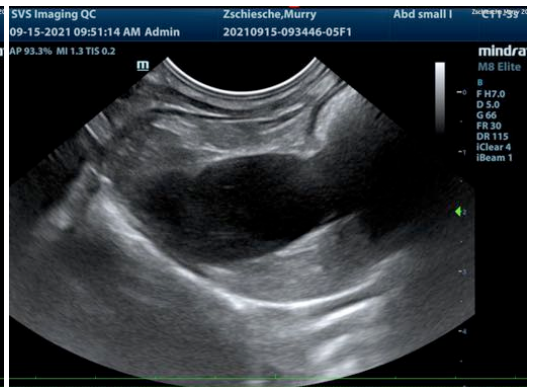
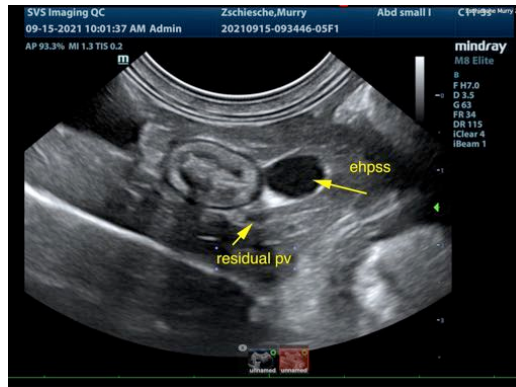
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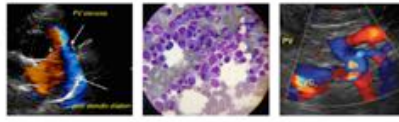
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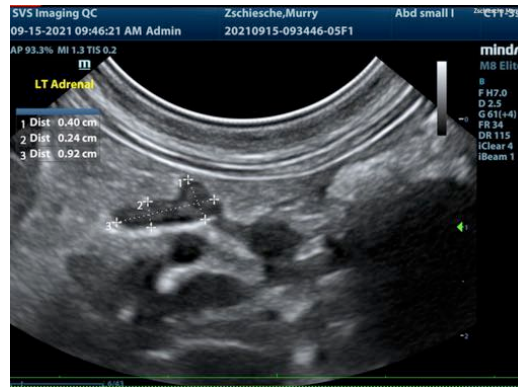
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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  
Eric.Lindquist@SonoPath.com