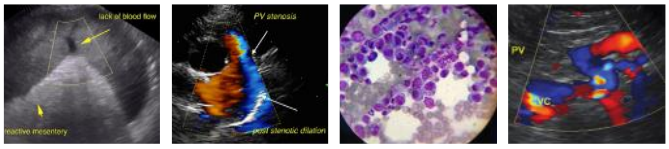
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

William Silver

SPECIES

Canine

BREED

Shih Tzu

SEX

Male Neutered

AGE

15

WEIGHT

5.2 kg

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Dr. Belan

HOSPITAL NAME

Aspen Animal Clinic

REFERRING VET

Dr. Ross

INVOICE

13823

DATE

5/6/22

PRESENTING CLINICAL SIGNS

History of recurring pancreatitis. Diarrhea that responds to metronidazole
Abnormal PE/Chem/CBC/UA Results: Mild elevation of liver enzymes

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Mild asymmetrical luminal surface to micropolyploid changes were present likely associated with age related mural changes. Mild subjective ventroapical to dorsoapical prominent urinary bladder walls exhibiting subtle luminal micropolyploid changes was present with normal overall urinary bladder size and tone. Anechoic urine was present in the lumen with no uroliths, sediment, or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 0.58 cm in diameter.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild to moderate loss of corticomedullary border demarcation expected for the age of the patient. Small cortical cyst was present in the right kidney. No evidence of pelvic dilation was present. The left kidney measured 4.0 cm in length. The right kidney measured 4.2 cm in length.

Adrenal Glands

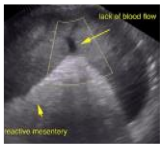
The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.48 cm width at the caudal pole and 0.34 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.48 cm width at the caudal pole and 0.59 cm width at the cranial pole.

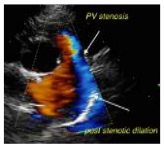
Spleen

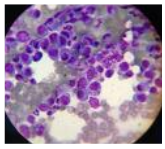
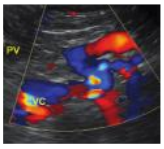
The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.

Liver/ Gallbladder

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with mild gallbladder debris primarily in the caudal lumen and gallbladder neck. The gallbladder walls were





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sonographically unremarkable. No evidence of peripheral gallbladder inflammation was noted. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material. The pylorus wall width measured 0.45 cm.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material. The jejunum wall width measured 0.25 cm. The duodenum wall width measured 0.30 cm.

Normal visible colon wall layers were present with semi-formed feces in the lumen, potentially consistent with reported diarrhea.

Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

- Hepatopathy - subjectively benign, metabolic, reactive, vacuolar, inflammatory i.e., cholangiohepatitis, no overt evidence of hepatic neoplastic criteria
- Mild gallbladder debris (non-mucocele)
- Micropolyploid urinary bladder changes associated with age, potential mild cystitis
- Chronic renal changes with small right kidney cortical cyst
- Heterogeneous pancreas - nonspecific, age-related / patient variant, minor remodeling owing to previous Inflammation or low-grade to chronic pancreatitis
- Overtly normal gastrointestinal tract

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The pancreatic presentation was not consistent with significant or active pancreatitis or neoplastic criteria.

Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.

Assuming normal clotting status, ultrasound-guided hepatic FNA using a 25-gauge needle could be considered for screening cytology primarily to assess for evidence of inflammatory cells.

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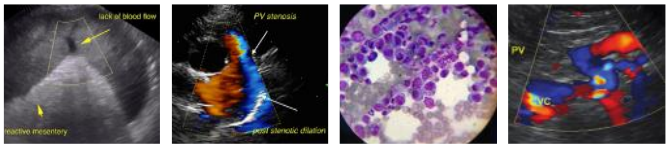

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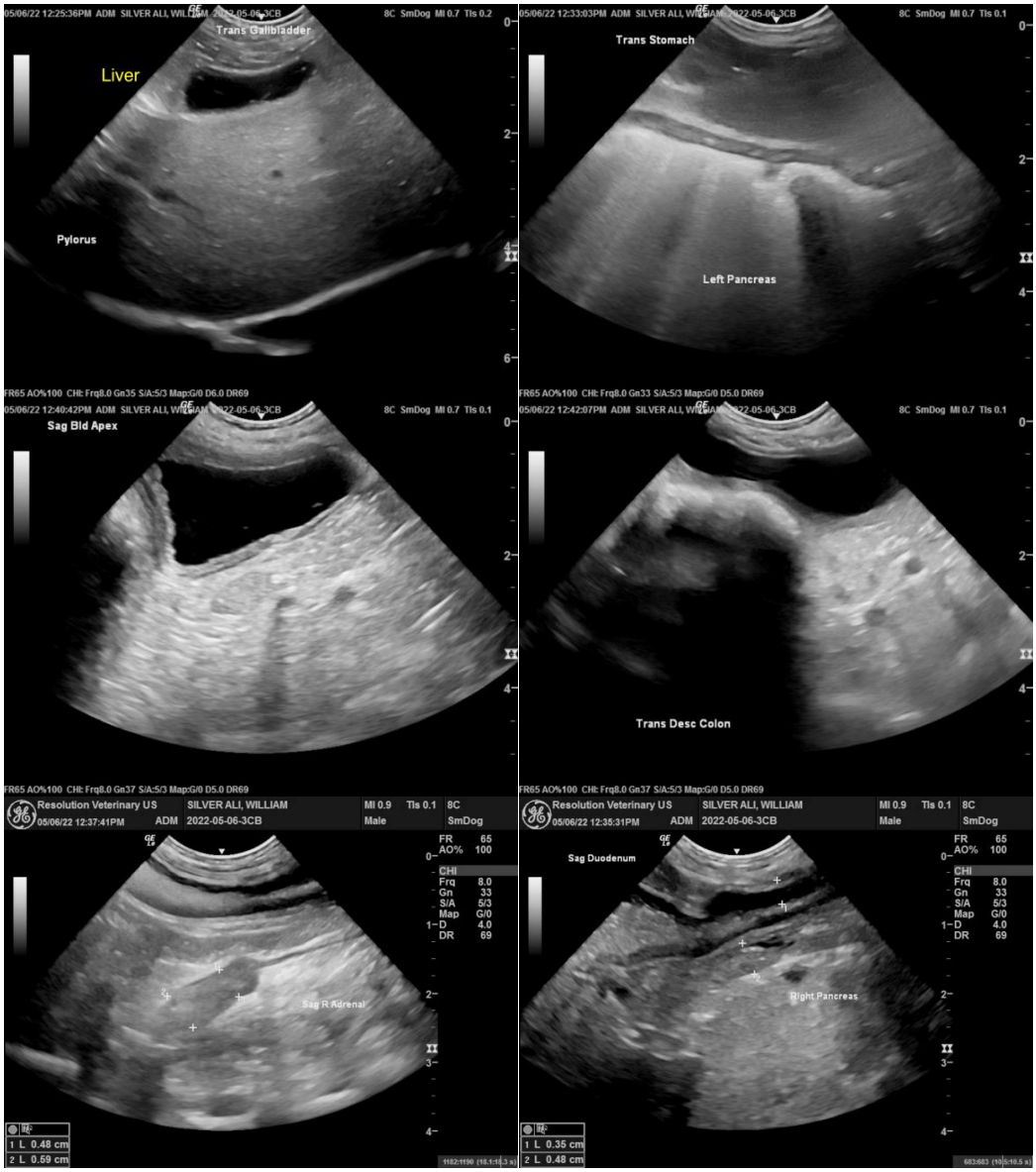
Contributing factors to the patient's diarrhea may include suspect chronic pancreatitis or primarily intestinal disease such as dysbiosis / antibiotic responsive diarrhea, IBD, or dietary intolerance / food hypersensitivity. Further assessment may include a GI panel to include PLI/TLI/Cobalamin/Folate.

Empirically, a limited antigen, hydrolyzed, or bland diet with potential long term dietary therapy, prophylactic deworming (Panacur 50 mg/kg SID x 5 consecutive days with repeat protocol in 3 weeks even if fecal testing is negative), high colony count probiotic (Proviable or Visbiome), antibiotic trial and as needed gastrointestinal support with assessment of clinical response may prove beneficial.



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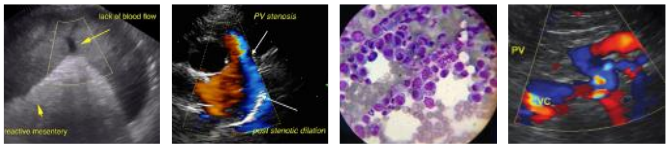

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com