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Clinical Sonography & Telecytology
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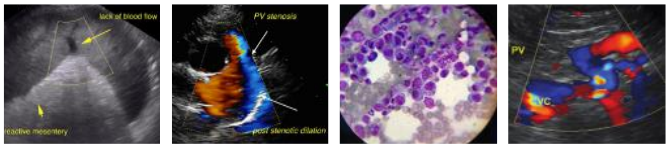


SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Max Halverson

SPECIES

Canine

BREED

Scottish Terrier

SEX

Neutered Male

AGE

8 Years 9 Months

WEIGHT

40 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Runnells, RVT

HOSPITAL NAME

SVS Imaging KC

REFERRING VET

Dr. Ballenger

INVOICE

15019

DATE

5/2/22

PRESENTING CLINICAL SIGNS

History: Chronic liver elevations.
Abnormal PE/Chem/CBC/UA Results: 4/25/22: Chem - ALB 4.1 (2.2-3.9), ALT 167 (10-125), ALKP 422 (23-212), TBIL 1.7 (0-0.9).

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder was mildly subnormal in size owing to lack of urine distention. No overt evidence of inflammatory or neoplastic criteria. Mild anechoic urine was present. No sediment or calculi noted. The urethra was normal to a depth of 4.0 cm.

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 0.67 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 and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 6.2 cm in length. The right kidney measured 6.7 cm in length.

Adrenal Glands

Both adrenal glands were normal without evidence of hyperplasia or tumors. The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.61 cm width at the caudal pole and 0.51 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 0.61 cm width at the caudal pole and 0.48 cm width at the cranial pole.

Spleen

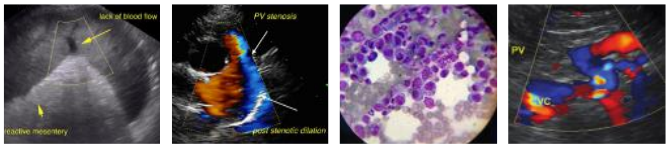
The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

Liver

The liver presented moderately enlarged in size. The ventral liver extended caudally past the level of the gastric axis. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non-distended. The gallbladder walls were sonographically normal without evidence of inflammatory changes. No evidence of peripheral gallbladder inflammation. Anechoic content was present with moderate mildly congealed yet nonorganized nonmineralized debris. The cystic and common bile ducts were normal.

Gastrointestinal



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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 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.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

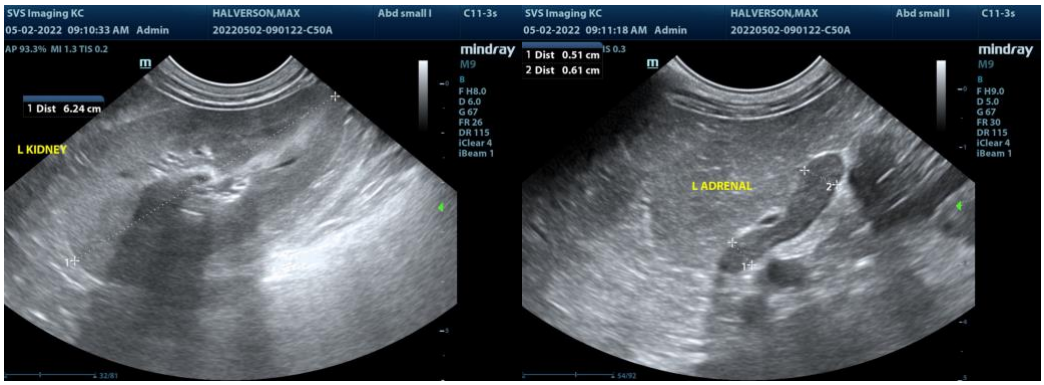
ULTRASONOGRAPHIC FINDINGS

- Hepatopathy
- Moderate gallbladder debris (non-mucocele)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The overall appearance of the liver was nonspecific yet consistent with benign hepatopathy. Considerations may include idiopathic or breed associated vacuolar hepatopathy, primary or concurrent nonspecific inflammatory hepatic parenchymal disease or hepatobiliary inflammation given the presence of mild gallbladder debris. Nonobstructive cholestasis without evidence of neoplastic criteria, which is considered unlikely. Correlation with pending hepatic FNA cytology is suggested. Given breed disposition for progressive vacuolar hepatopathy, which at times may lead to hepatic neoplasia, serial sonographic monitoring of the liver is advised with, ideally, hepatic sonographic recheck is suggested if progressive hepatic enzyme elevations are noted. Empirically, hepatosupportive medications, including Denamarin and ursodiol may prove beneficial.

No overt suspicion of adrenal disease given the normal sonographic appearance of the bilateral adrenal glands and lack of reported clinical signs (i.e., PU/PD, polyphagia, etc.).



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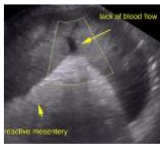
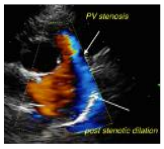
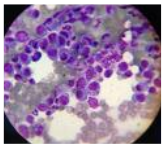
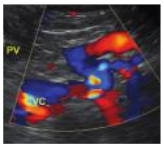

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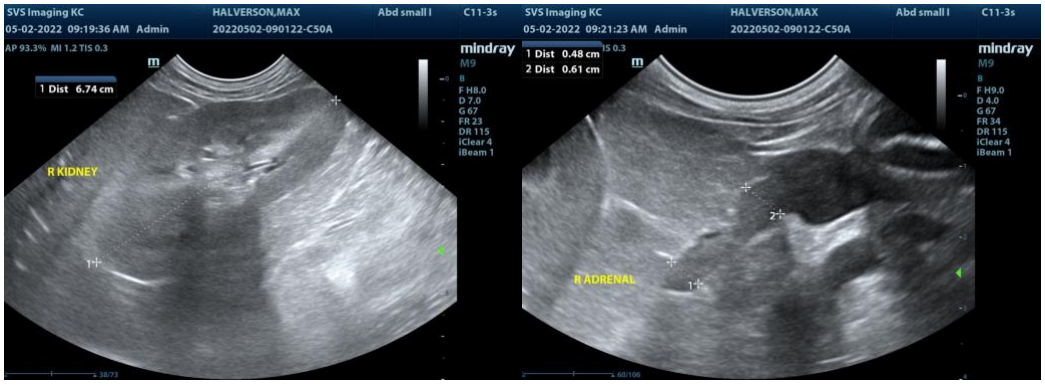

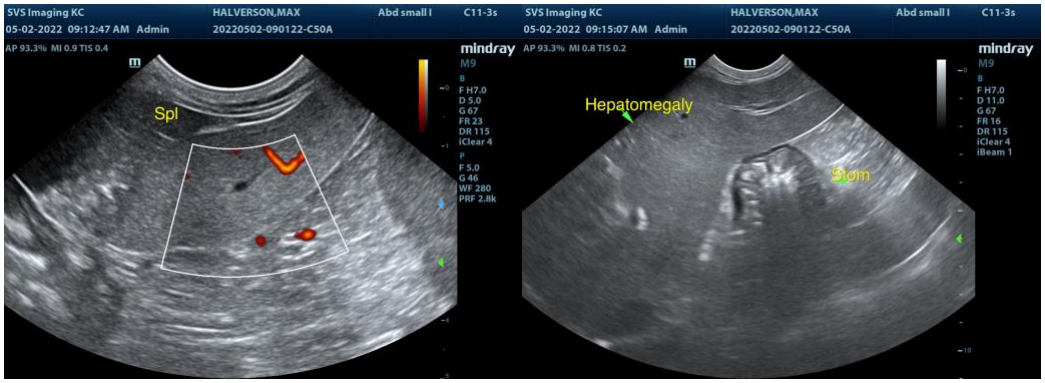

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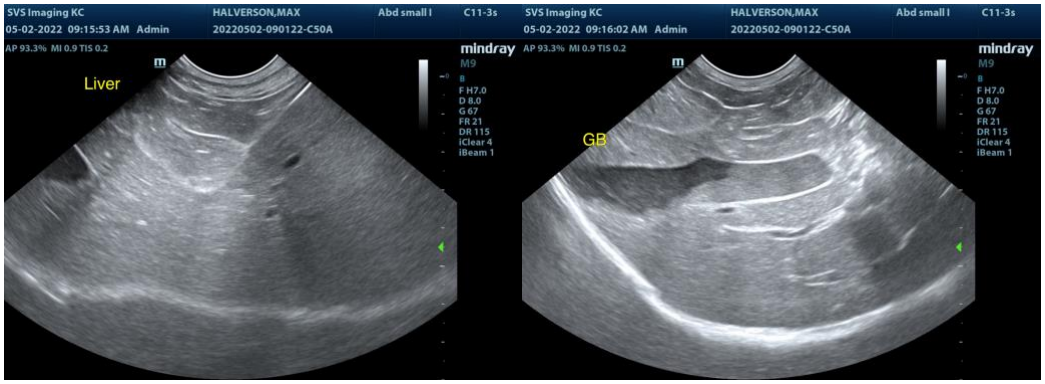

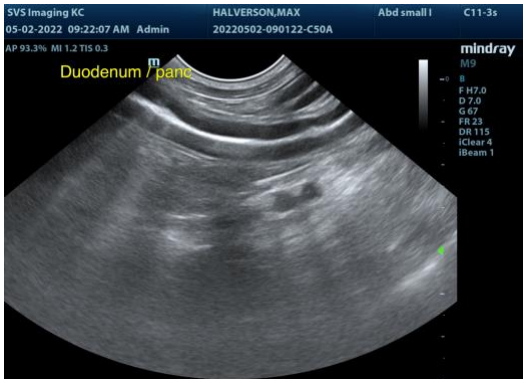

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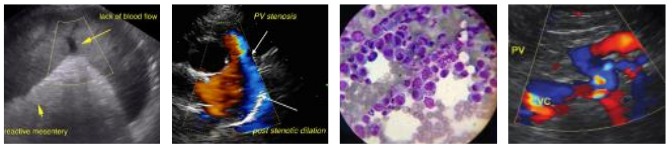

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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