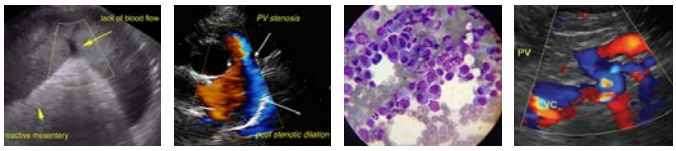
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Rusty Miller

SPECIES

Canine

BREED

Chihuahua

SEX

Neutered Male

AGE

6 Years

WEIGHT

19.6 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

HOSPITAL NAME

Total Bond VH

REFERRING VET

Dr. Mark Epstein

INVOICE NUMBER

29814

DATE

11/11/21

PRESENTING CLINICAL SIGNS

chronic liver value elevations, more recently to include Tbili (0.6); USG 1.051 so typical Cushings less likely. Currently being managed for resolving indolent ulcer. AFAST 3/21 seemed unremarkable at that time. See trends of values below. Currently on Denosyl 90mg SID, NeoPolyBac OD TID
Abnormal PE/Chem/CBC/UA Results: Alp 800 Alt 185 T. bili 0.6 Triglycerides 1508

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Prostate is normal in size, echotexture and echogenicity for a neutered male.

The left kidney measures 4.39 cm. The right kidney measures 5.13 cm. The kidneys are normal in size and shape with smooth peripheral margination and normal 1:3 cortex to medulla ratio. Medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Adrenal Glands

Right adrenal gland is normal in size (0.74 cm at cranial pole and 0.70 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Left adrenal gland is normal in size (0.49 cm at cranial pole and 0.59 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

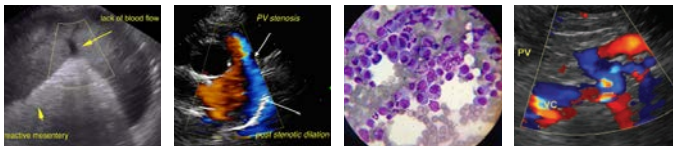
Liver

Liver is subjectively enlarged with rounded margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature appears normal.

Gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is mildly distended with very echogenic reverbation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.



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The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

Pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

ULTRASONOGRAPHIC FINDINGS

- Very mild loss of corticomedullary distinction in both kidneys – This finding can occur with normal benign age related degenerative disease and should be interpreted clinically in combination with laboratory changes. Normal patient variant is also a differential.

- Heterogenous liver – Differentials for hepatic changes include both benign steroid (vacuolar) hepatopathy or extramedullary hematopoiesis as well as infiltrative round cell or metastatic neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Differentials are vast and non-specific. Differentials include, but are not limited to, benign nodular hyperplasia which occurs in 70% of older dogs and often does not result in an abnormal ultrasound, reactive or idiopathic/vacuolar hepatopathy, cholestasis and/or hyperadrenocorticism as well as many chronic non-hepatobiliary diseases such as chronic infections/inflammation from dental disease, IBD, neoplasia, hyperlipidemia, hypothyroidism, chronic pancreatitis, chronic stress, etc.

There is no ultrasonographic evidence of cholestasis. While hyperadrenocorticism is considered unlikely with concentrated urine and no clinical signs, if clinical signs develop, adrenocortical testing such as a low dose dexamethasone suppression test could be considered. Otherwise, a fine needle aspirate of the liver could be considered if patient's coagulation status is appropriate. An empirical course of antibiotics could be considered, as could an empirical course of Ursodiol in case there is non-visible early intrahepatic cholestasis. Following that, recommendations include rechecking/monitoring, and ultimately if the value is progressive and an underlying cause cannot be determined, a liver biopsy may be considered.

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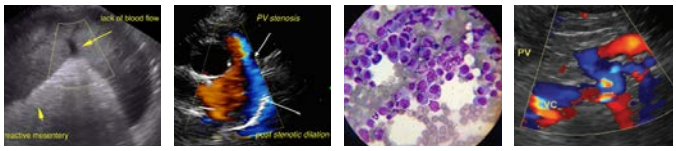

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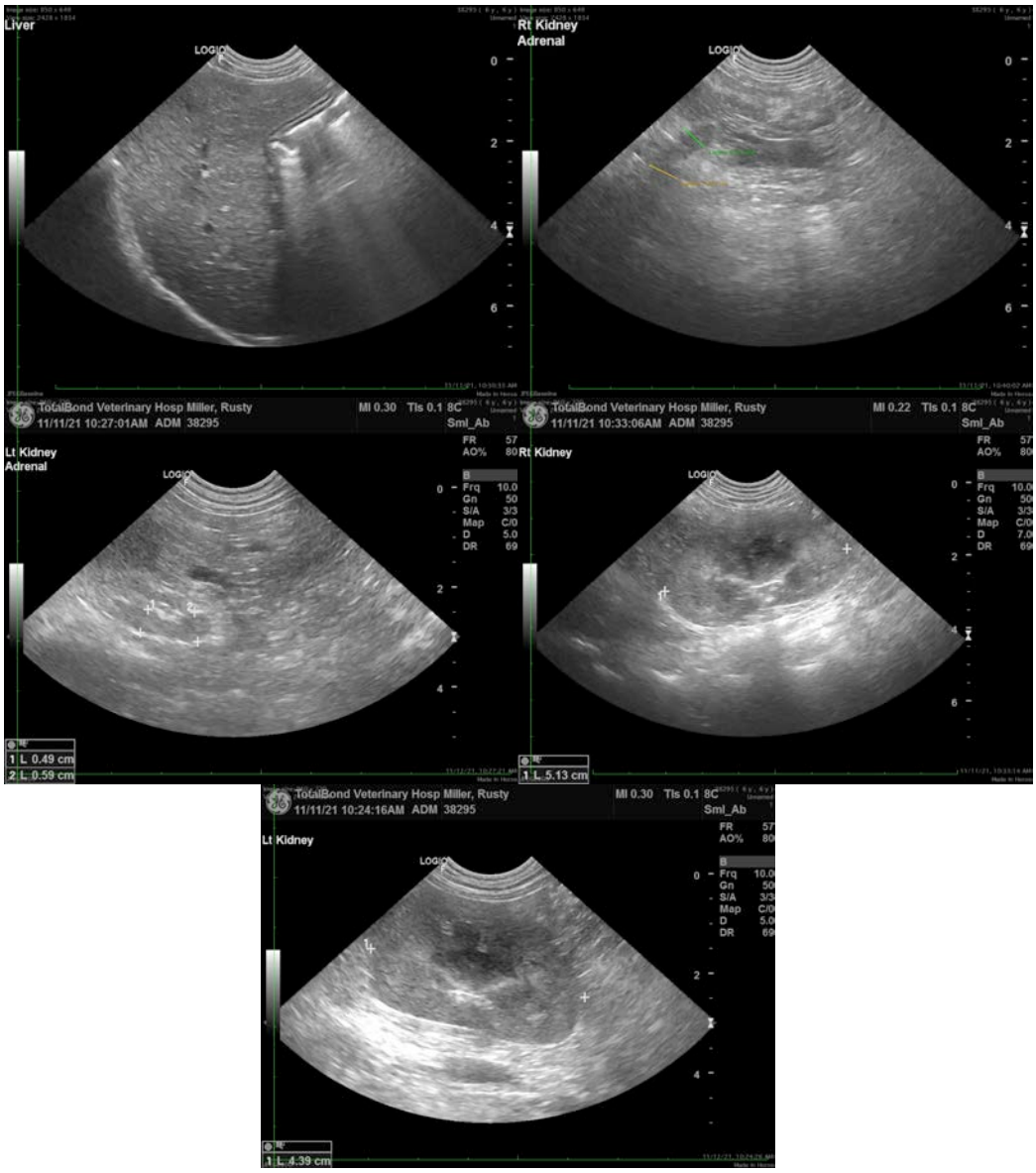

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM, DACVIM
Beth.Johnson@sonopath.com