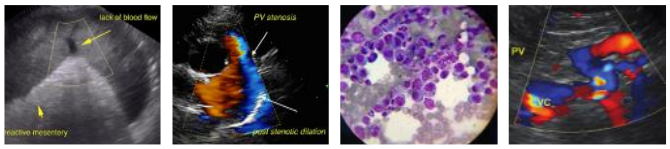
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Sparky Marvin

SPECIES

Canine

BREED

Fox Terrier

SEX

MN

AGE

13yr

WEIGHT

13.2lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Ebersole

HOSPITAL NAME

Scanvet

REFERRING VET

Dr. Fortin

INVOICE

12014ag

DATE

10/26/2022

PRESENTING CLINICAL SIGNS

Chronic soft stools with intermittent blood. Minimal improvement on bland diet. Metronidazole seems to make stools worse. Trazodone, Gabapentin and Torbugesic for sedation.

Abnormal PE/Chem/CBC/UA Results: PE: very tense on abdominal palpation. 10/18/22: ALT 162, ALP 667, GGT 25, Amylase 1,517, T-4 0.6. 1/27/22: ALP 374, Amylase 1,476, T-4 0.8

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

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 loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 4.0 cm in length. The right kidney measured 4.5 cm in length.

The area of the aortic trifurcation was free of pathology.

The area of the residual prostate appeared normal and free of pathology measuring 0.87 cm in diameter.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.57 cm width at the caudal pole and 1.9 cm length. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.64 cm width at the caudal pole and 2.0 cm length.

Spleen

The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Multifocal, well-defined, symmetrical, hyperechoic nodules were present throughout the cranial to caudal 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 or neoplastic changes were not noted. The echogenic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas.

Liver

The liver presented moderately enlarged in size. The parenchyma of the liver was subjectively normal to mildly increased 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 in size with primarily anechoic luminal content and non-dependent echogenic non-organized luminal debris. No evidence of gallbladder or peripheral gallbladder inflammation was present. The cystic and common bile ducts were normal.

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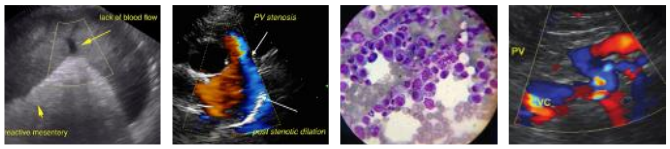

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Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained mild ingesta exhibiting areas of subtle progressive distal acoustic shadowing with no signs of ileus, obstruction or foreign material. The pylorus wall measured 0.34 cm in width.

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 duodenum wall measured 0.32 cm width. The jejunum wall measured 0.30 cm width.

The colon walls presented intact yet prominent wall layering with mild thickened to echogenic submucosa primarily within the descending colon at the level of the urinary bladder. Semi formed to soft fecal matter was present in the colon lumen with lumen dilation. The descending colon wall measured 0.26 cm in width.

Pancreas

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

Free Abdomen

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

- Overtly normal GI tract with mild gastric ingesta, mild colitis pattern
- Heterogeneous to regional hyperechoic right pancreas
- Nonspecific subjective benign hepatopathy
- Mild gallbladder debris (non-mucocele)
- Mild age-related kidney changes

Secondary

- Benign splenic nodules-consistent with myelolipomas

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A GI panel to include PLI/TLI/Cobalamin/Folate is recommended to assess for potential low grade or chronic pancreatitis as well as structurally insignificant enteropathy, both of which may present sonographically normal. Empirically, a limited antigen or hydrolyzed diet trial 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), +/- empirical cobalamin supplementation pending GI panel results and as needed gastrointestinal support with assessment of clinical response may prove beneficial. The worsening of clinical signs of metronidazole may be secondary to alterations in GI flora. Intestinal biopsies may be indicated if GI signs continue despite empirical therapy.

Considerations for the liver may include vacuolar hepatopathy, non-obstructive cholestasis or inflammatory/immune mediated disease i.e. cholangiohepatitis. No overt evidence of hepatobiliary neoplastic criteria was observed. Assuming normal clotting status and using a 25g needle, a hepatic FNA for screening cytology is warranted for further assessment. Hepatosupportive medications such as Denamarin or Vitamin E as well as Ursodiol may prove beneficial with continued monitoring of hepatic response.

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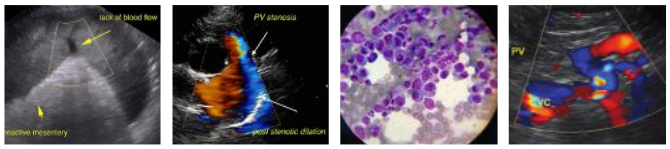

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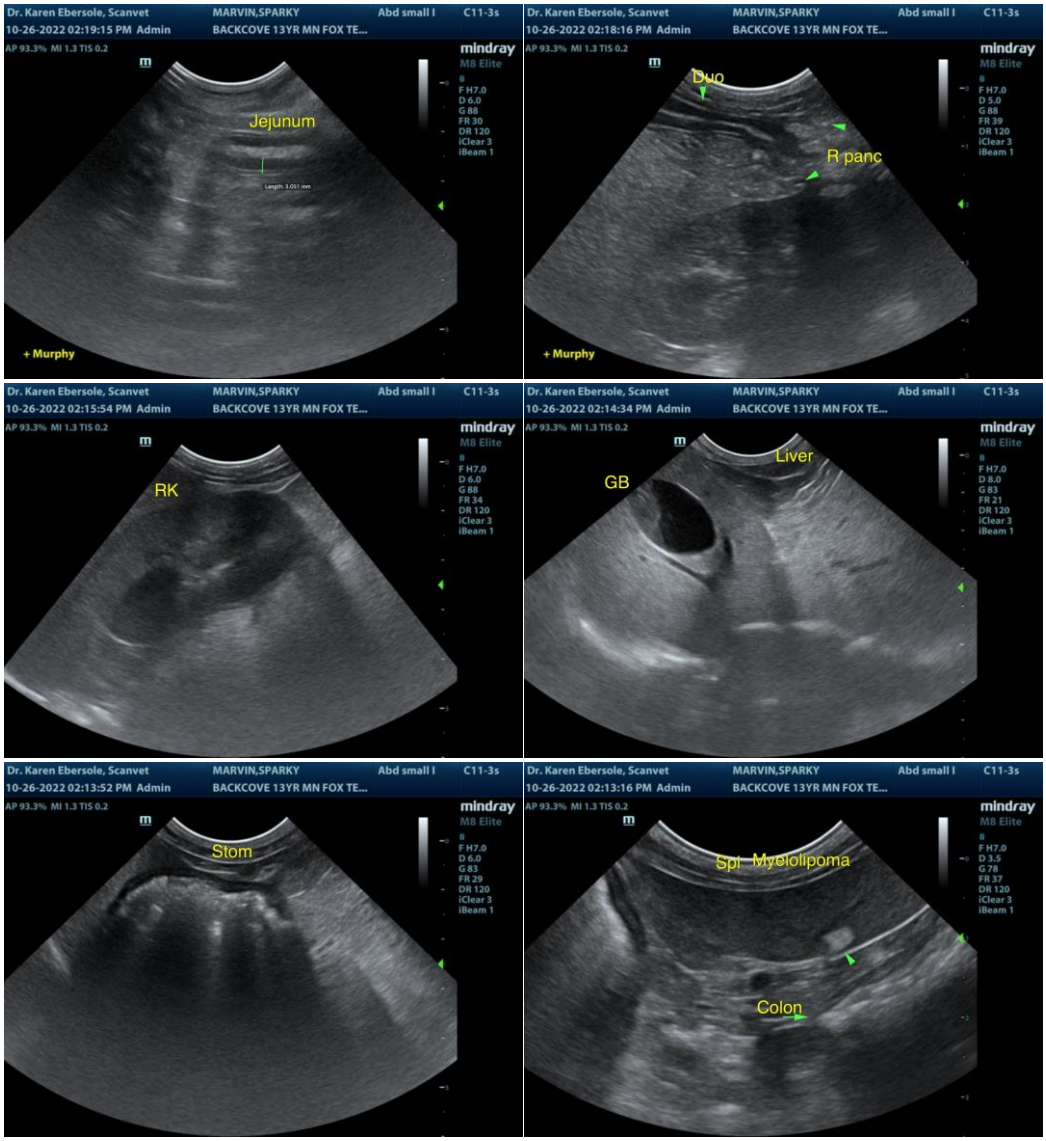

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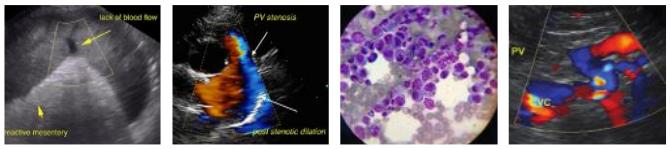

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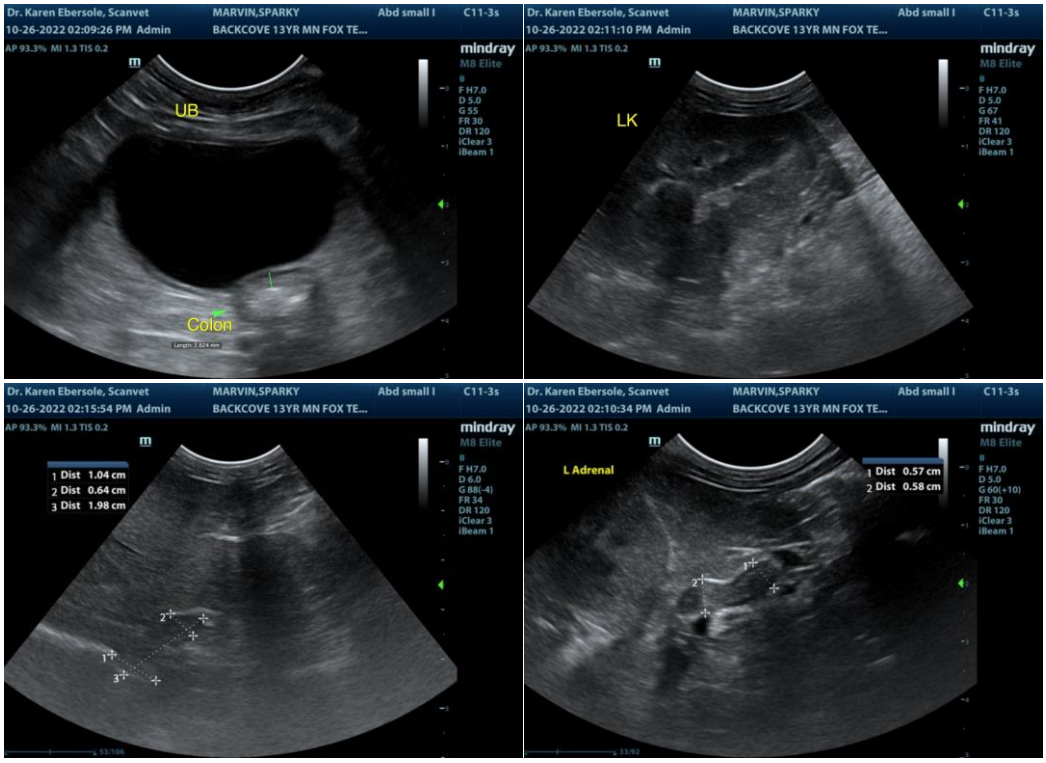

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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