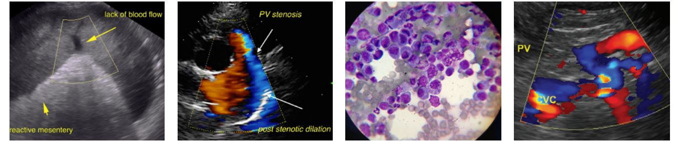
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Tom Lee

SPECIES
Feline

BREED
DSH

SEX
Neutered Male

AGE
11 Years

WEIGHT
13.9 Pounds

INTERPRETED BY
Lisa Carioto, DVM, DVSc, Diplomate ACVIM

IMAGING PERFORMED BY
Dr. Velasco

HOSPITAL NAME
Bethany Family PC

REFERRING VET
Dr. Velasco

INVOICE
36564

DATE
3/29/22

PRESENTING CLINICAL SIGNS

Tom has been on a urinary diet after having an obstruction earlier in his life. Recently, he has been drinking a lot more water, and he is not eating well. He lost 2 # since September. Kidneys are large firm and slightly uncomfortable on palpation
Abnormal PE/Chem/CBC/UA Results: Crea = 4.7 BUN = 92 UA = contains 20-30 WBC, no bacteria are seen USG = 1.017 Culture is pending

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is very well filled. The wall is smooth and regular. No abnormalities are present with the trigone or proximal urethra, and there is no evidence of sediment, cystoliths, polyps or a mass.

The left kidney measures 6.10 cm, which is markedly enlarged. The cortex of the left kidney is severely hyperechoic. The cortex is thinner circumferentially, measuring up to 5.5 mm. The medulla is more echogenic, possibly due to pyuria or infiltration of inflammatory or neoplastic cells. The definition of the corticomedullary junction is severely exaggerated. The pelvis is markedly hyperechoic, possibly due to severe inflammation. A scant anechoic halo surrounding the cortex is present, which is consistent with fluid. It is difficult to determine whether the fluid is subcapsular or perirenal. The pelvis measures 2.1 mm, which is consistent with a polydipsic individual.

The right kidney measures 5.94 cm. Its appearance is very similar to the left. The cortex measures up to 5.82 mm. The pelvis is mildly dilated at 2.98 mm, which is attributed to PU/PD. Subcapsular or perirenal fluid accumulation is also present.

Adrenal Glands

The adrenal glands were not visualized.

Spleen

The spleen is within normal limits in size (8.8 mm), architecture, echotexture, and echogenicity. The capsule is smooth. No abnormalities are observed with its vasculature, i.e. congestion and thrombi are not identified.

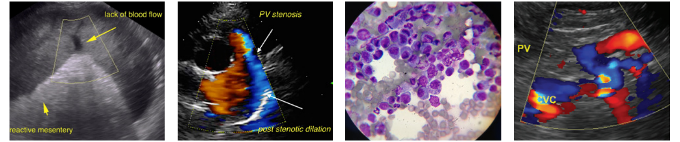
Liver

An ill-defined, hypoechoic area within the liver is evident. It measures 1.27 cm in length x 1.42 cm in diameter. Differential diagnoses include a regenerative nodule, a cystadenoma in its early development or possibly neoplasia. It is not typical of neoplasia, however.

Subjectively, the liver appears enlarged with rounded borders. It is diffusely hyperechoic (i.e., it is hyperechoic to the falciform fat), which may occur due to cholangitis/cholangiohepatitis, as well as hepatic lipidosis. The latter is possible based on Tom's hyporexia. Other hypoechoic nodules of variable size are noted, which are most likely due to nodular hyperplasia.

A moderate amount of gravity-dependent echogenic material/debris (sludge) is present within the lumen of the gall bladder. The sludge casts a hyperechoic shadow. Signs of cholecystitis are not appreciated.

Gastrointestinal



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The gastric wall and pylorus are normal in thickness. There is no loss of definition of the normal architecture of the layers of the stomach wall. No obvious abnormalities are observed with its peristalsis.

The small intestinal wall thickness is within normal limits and there is no evidence of dilation. The definition of the wall layers is preserved. The colonic wall is not thickened and mural detail is considered normal. There are no obvious signs of a mass, foreign body, infiltrative disease or an obstruction.

Pancreas

No overt abnormalities are observed with regard to the pancreas' echogenicity or echotexture. There is no evidence of hyperechogenicity of the surrounding mesenteric fat.

The right pancreas was not visualized properly.

Other

Lymph nodes: No obvious abnormalities are observed.

Abdominal effusion is not visualized.

ULTRASONOGRAPHIC FINDINGS

- Differential diagnoses for the renal abnormalities observed include bilateral lymphoma or other infiltrative neoplasm, however, pyelonephritis cannot be excluded. Feline infectious peritonitis is another possibility.

- The diffuse hyperechogenicity of the liver is highly suggestive of a vacuolar hepatopathy, most likely due to hepatic lipidosis as a result of hyporexia, however, cholangitis/cholangiohepatitis and cholestasis are possible. The hypoechoic nodules observed are most likely due to nodular regeneration, which is a benign, age-related change. The ill-defined hypoechoic nodule is not typical of neoplasia, however, a fine needle aspirate is required to exclude it with certainty.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Enrofloxacin is recommended pending the culture and sensitivity results. Depending on the results, a PT, PTT and platelet count are recommended, in addition to 1-3 injections of vitamin K SC to perform a fine needle aspirate of the renal cortex to exclude lymphoma, other neoplastic process or granulomatous process (FIP). If pyelonephritis is excluded, further diagnostics are not pursued, or referral to an oncologist is not an option, treatment with steroids may be considered.

As suggested above, a coagulation profile is recommended prior to performing a FNA and administration of vitamin K (0.5 mg/kg SQ q8-12h for 1-3 doses) is suggested even if the results of the PT/PTT are within normal limits.

A fine needle aspirate of the hypoechoic hepatic nodule may also be performed.

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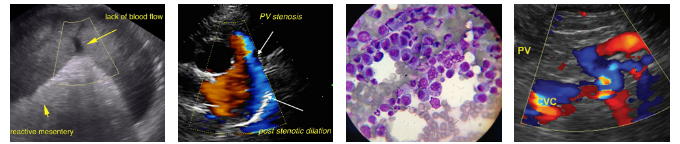

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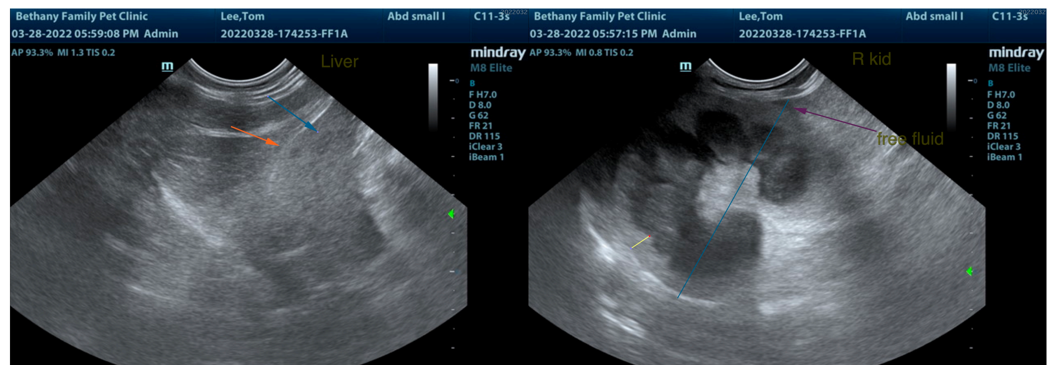

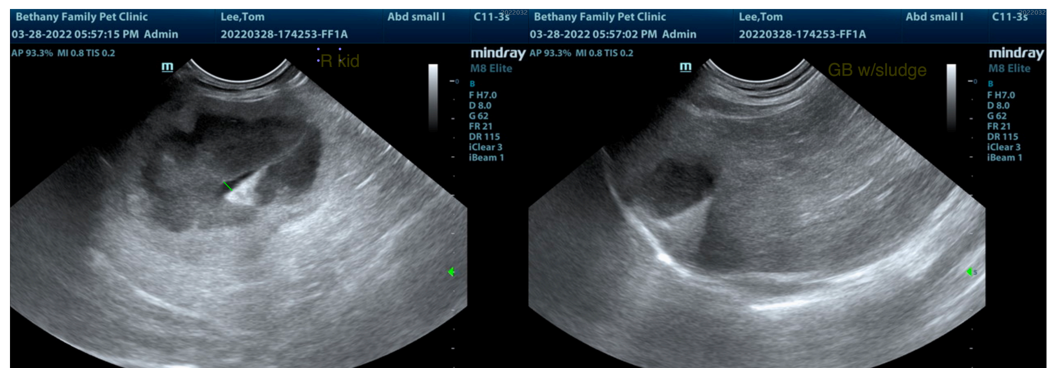

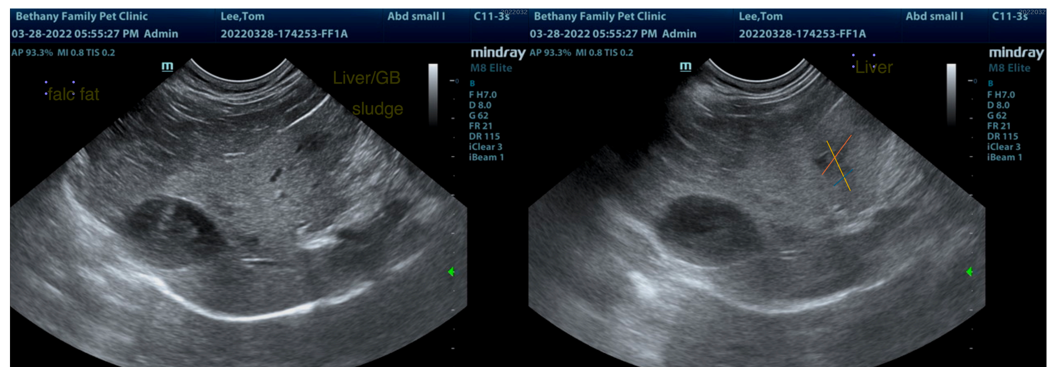

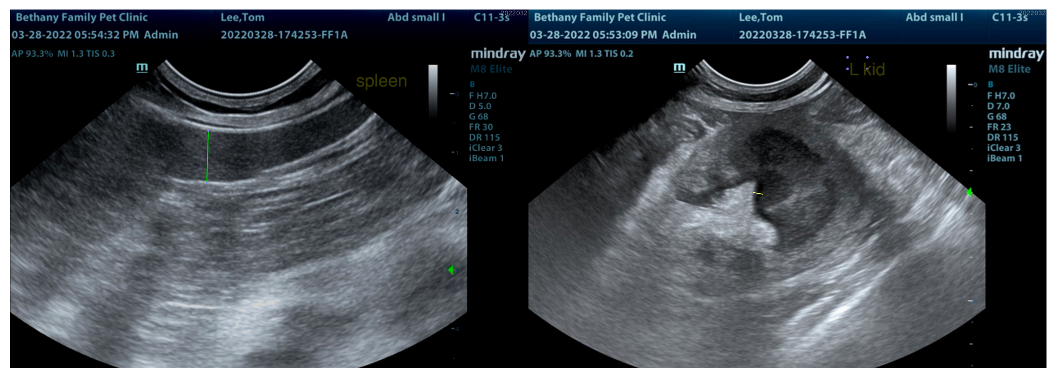

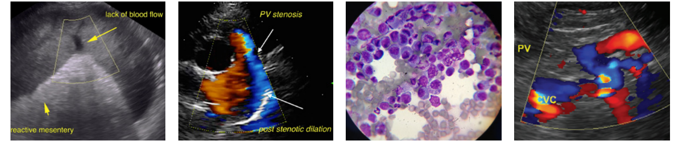

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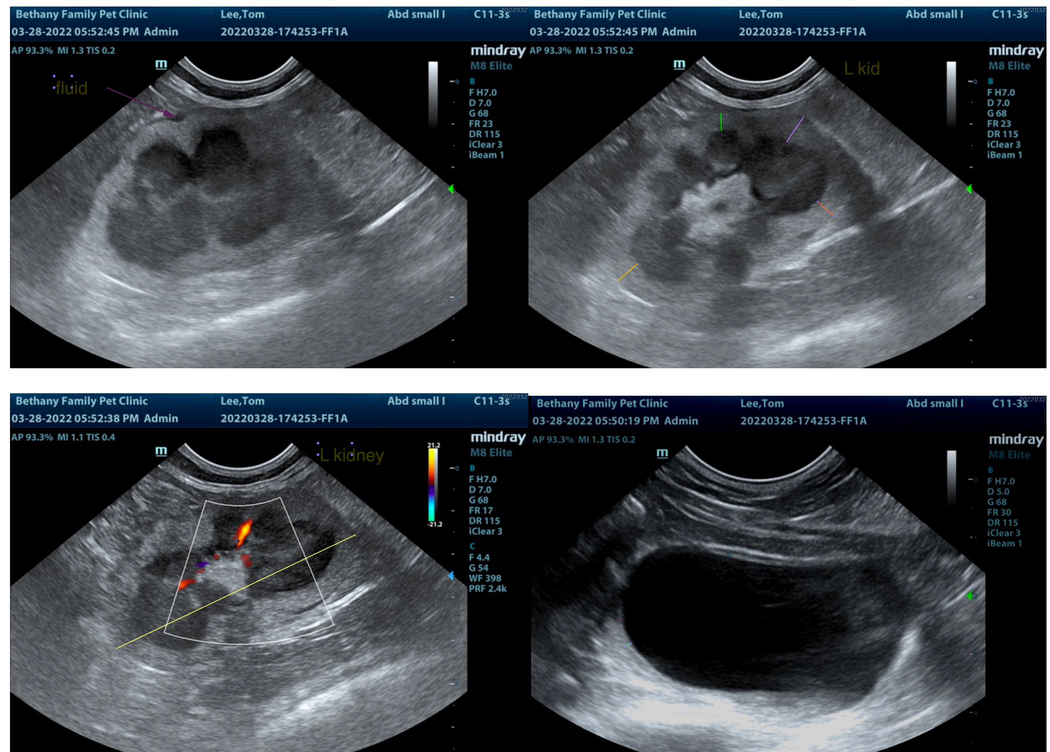

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Lisa Carioto, DVM, DVSc, Diplomate ACVIM

Lisa.Carioto@sonopath.com