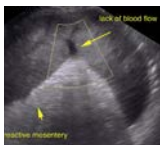
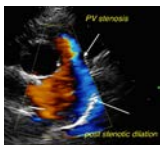
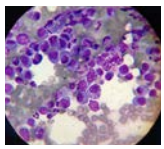
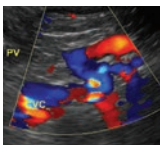
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Lucy Marino

SPECIES

Canine

BREED

Beagle

SEX

Spayed Female

AGE

12 Years

WEIGHT

32 Pounds

INTERPRETED BY

Tam Mengine, DVM, DABVP (canine/feline practice)

IMAGING PERFORMED BY

Dr. Tam Mengine

HOSPITAL NAME

Stoney Creek VH

REFERRING VET

Dr. Tam Mengine

INVOICE

40684

DATE

8/24/22

PRESENTING CLINICAL SIGNS

New azotemia & non-regen anemia detected at annual exam. Clinically well, but is occ constipated and has lost 2 pounds (Hct 36%, BUN 40, Creat 2.0, SDMA 16). Chol also a little low. U/A - SpGr 1.029, quiet sediment. no proteinuria.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is minimally distended with anechoic urine, and luminal sediment is not present. The bladder wall is diffusely thickened (up to 5.2 mm) and there are irregularities to the mucosal surface. The ureteral papillae, trigone and pelvic urethra are of normal appearance, and the ureters are not visible (normal). No masses or calculi are noted.

The kidneys are hyperechoic and exhibit mildly decreased cortico-medullary differentiation. There is no evidence of nephrolithiasis, mineralization, pyelectasia or hydronephrosis. The proximal ureter is not visible (normal). The left kidney meaures 4.9 cm. The right kidney measures 4.9 cm.

Adrenal Glands

The adrenal glands are both identified in their normal locations. They are normal in size and shape with appropriate parenchymal echogenicity and normal phrenic vasculature.

The adrenal glands are both identified in their normal locations. There is a small hyperechoic nodule arising from the caudal pole of the left adrenal gland, measuring 7.9 mm. They are otherwise normal in size and shape with appropriate parenchymal echogenicity and normal phrenic vasculature. The left adrenal gland measures 5.2 mm at the cranial pole and 7.9 mm at the caudal pole. The right adrenal gland measures 4.0 mm at the cranial pole and 3.7 mm at the caudal pole.

Spleen

The spleen is of appropriate size and has a normal, homogenous parenchyma with a smooth, continuous capsular surface. The splenic vasculature is normal with no evidence of congestion or thrombosis, and blood flow through the splenic hilus appears normal.

Liver

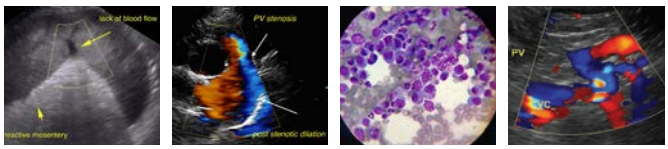
The liver is of appropriate size and shape, with sharp borders and a mildly coarse parenchymal echotexture that is hypoechoic to the spleen. The portal and hepatic vasculature are of normal size and appearance with no evidence of congestion or thrombosis.

The gallbladder is moderately distended with anechoic contents. The wall was thin and continuous with no focal lesions. The cystic and common bile ducts are normal / not visible.

Gastrointestinal

The stomach is empty. The gastric wall is normal in thickness (4.3 mm) with deviations due to rugal folds, and exhibits appropriate wall layering. The pylorus is of normal appearance.

The small bowel has diffuse changes to the normal 1:3 muscularis to mucosa ratio. Wall measurements are slightly increased up to 5.2 mm. Overall wall layering is preserved.



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The visible portions of the colon are of normal thickness (1.2 mm) with intact wall layering. The ileocecal junction.

Pancreas

The areas of the limbs and body of the pancreas are isoechoic to the surrounding mesenteric fat, with normal capsular appearance. There is no evidence of peripancreatic inflammation. The pancreatic duct appears normal.

Free Abdomen

There is no evidence of free fluid within the peritoneal cavity. The omentum and intra-abdominal fat are of appropriate echogenicity. Enlarged abdominal lymph nodes are not observed. The aortic trifurcation has normal blood flow with no evidence of thrombosis.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Bladder changes consistent with chronic cystitis
- Mild chronic renal changes

SECONDARY FINDINGS:

- Mild changes to the small bowel – typical of inflammatory bowel disease.
- Left adrenal hyperplasia

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The changes in the bladder wall are consistent with chronic inflammatory changes, or less likely neoplasia. Recommendations include:

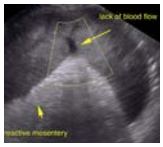
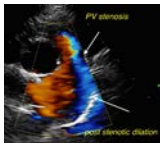
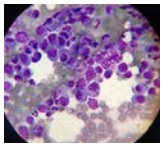
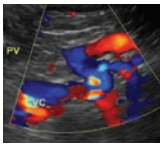
- ❖ a urinalysis and urine culture, if not already performed
- ❖ BRAF testing could be considered if culture is negative or if there are persistent lower urinary tract symptoms. Information on performing this urine test is available from Antech Diagnostics: https://www.antechdiagnostics.com/cadet-braf-plus/

The changes in the kidneys are consistent with chronic renal disease. Recommendations include:

- ❖ a CBC, chemistry panel, urinalysis, urine protein creatinine ratio and blood pressure measurement are recommended
- ❖ urine culture should also be considered, particularly if urine sediment is active
- ❖ dietary and supportive care recommendations can be made, based on the staging of the disease as outlined in the IRIS guidelines
- ❖ Leptospirosis testing should be considered, given the relatively mild changes to the kidneys.

The nodule on the left adrenal gland may be indicative of adrenal hyperplasia, a benign adrenal adenoma, or an early malignancy such as pheochromocytoma or adenocarcinoma. Recommendations include:

- ❖ blood pressure measurement to screen for pheochromocytoma

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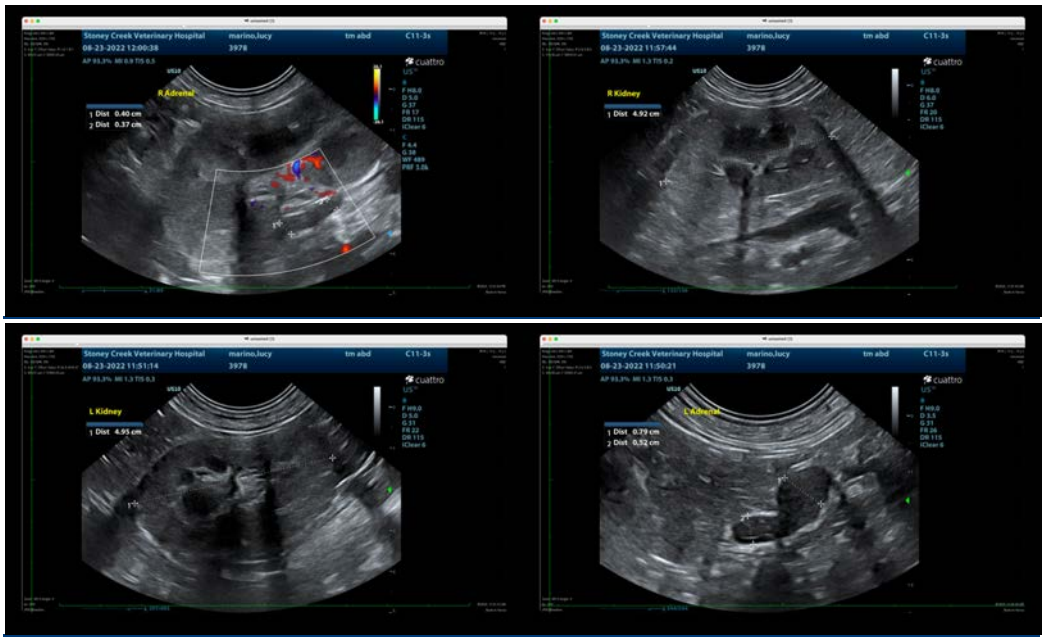
- ❖ if signs of Cushing's disease are present, then adrenal function testing (either a low-dose dex-suppression test or ACTH stimulation test) is recommended
- ❖ monitoring the nodule for changes in size or appearance, via serial ultrasounds at 6-8 week intervals

The mild changes to the intestinal wall could be attributed to infiltrative bowel disease. It is possible that this could be associated with the reported constipation. A GI panel and a food trial could be considered.



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.

Tam Mengine, DVM, DABVP (canine/feline practice)

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