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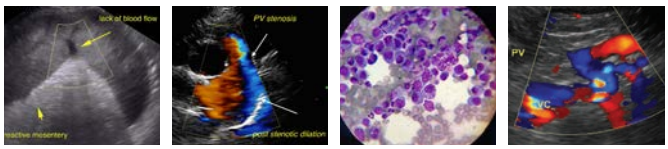
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Lulu Torkelson

SPECIES
Canine

BREED
Springer Spaniel

SEX
Spayed Female

AGE
13 Years

WEIGHT
45.2 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
Dr. Jessica Bailes

HOSPITAL NAME
All Creatures Great & Small Vet Clinic

REFERRING VET
Dr. Jessica Bailes

INVOICE
39738

DATE
7/21/22

PRESENTING CLINICAL SIGNS

Hx of progressive elevation in ALT, elevated proteinuria w/ elevated UPC, systemic hypertension. Abnormal PE/Chem/CBC/UA Results: congnitive decline, blind/deaf, dental disease, otherwise NSF on PE Bloodwork: elevated ALT (228), increased BUN (39); USG = 1.039; 4+ proteinuria (UPC elevated @ 1.9); systolic BP elevated @ 160.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The 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.

Kidneys are normal in size and contour. The left kidney measured 6.88 cm. The right kidney measures 6.2 cm. A relatively uniform hyperechogenicity is observed with mildly decreased corticomedullary distinction. There is no pyelectasia noted. No overt masses/nodules are observed. Non-obstructive areas of mineralization/nephroliths are noted in both kidneys. A cortical cyst is noted in the left kidney.

Adrenal Glands

Adrenal glands are largely normal in size, shape and contour. Some parenchymal heterogenicity is present without concerning capsular distortion. These changes are likely normal for this age but should be monitored if there is any suspicion of adrenal disease. The left adrenal gland measures 2.0 cm x 0.66 cm at the cranial pole and 0.92 cm at the caudal pole. The right adrenal gland measures 1.5 cm long x 0.43 cm at the cranial pole and 0.42 cm at the caudal pole.

Spleen

The 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

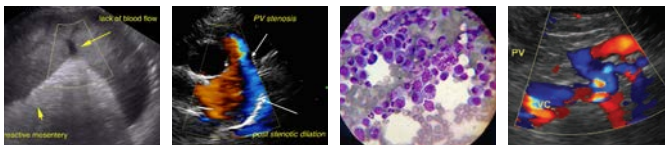
The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease.



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

Pancreas

The 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 free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

PRIMARY FINDINGS

- **Nephritis –** This appearance can be consistent with chronic interstitial nephritis or glomerulonephritis. Toxic insult and/or infectious disease (pyelonephritis, Leptospirosis, etc.) cannot be ruled out. This finding should be interpreted in combination with suspicion for renal disease and/or supporting laboratory or urinalysis changes.

SECONDARY FINDINGS

- **Age related adrenal heterogenicity**

- **Gallbladder debris -** Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given this patient's history of mild proteinuria and mild hypertension combined with the changes in the kidneys, a urine culture is recommended if not recently evaluated, as is testing for Leptospirosis.

- An obvious cause for the reported increased liver enzymes is not identified in these images. Recommendations include an "antigen search" for sources of reactive hepatopathy (including testing for Leptospirosis), followed by a course of empirical antibiotics and hepatic nutraceuticals, with monitoring of ALT for improvement. If improvement is not noted and/or enzyme increase progresses, a liver biopsy may be warranted.

- In the meantime, in addition to hepatic nutraceuticals and antibiotics, an ACE inhibitor could be considered to address the mild hypertension and mild proteinuria.

- Finally, if clinical signs of hyperadrenocorticism are present such as polyuria, polydipsia, polyphagia, etc., testing for hyperadrenocorticism in the form of a low-dose Dexamethasone suppression test could be considered. However, without clinical signs, testing is not indicated.

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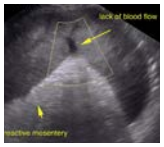
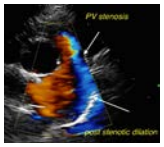
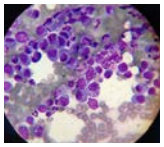
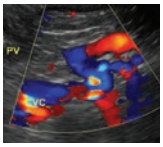

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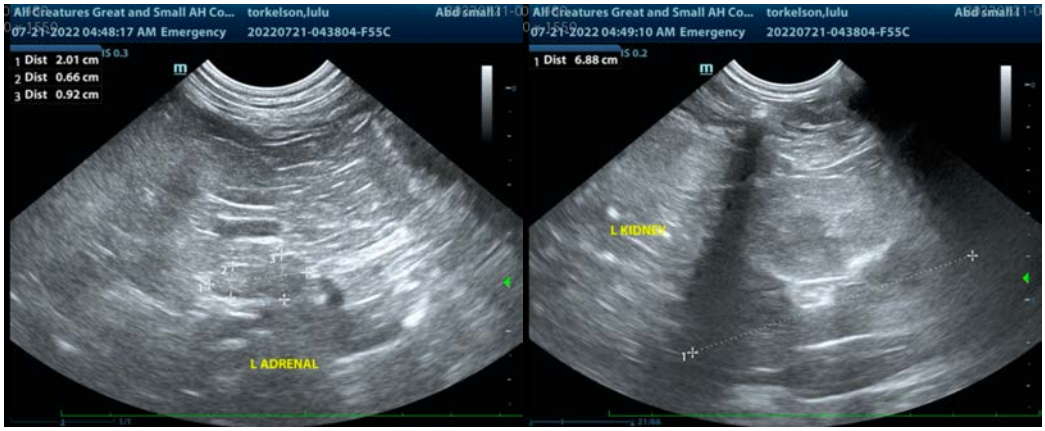

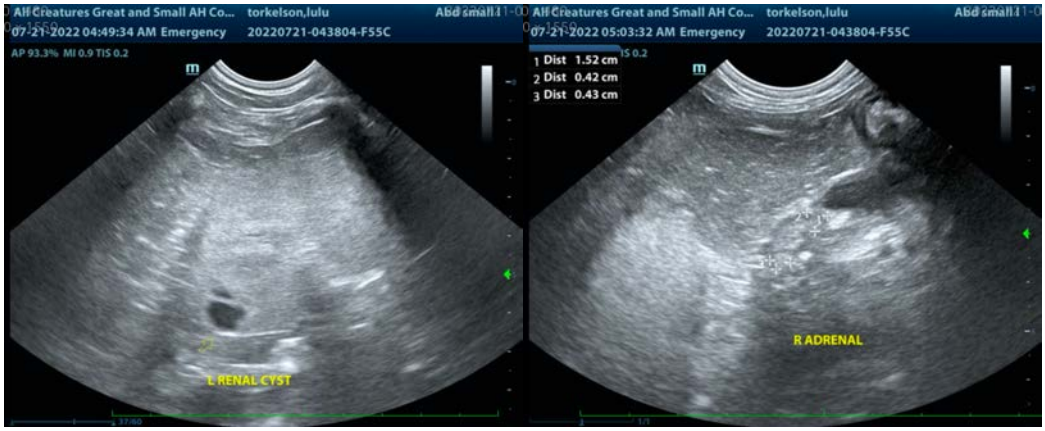

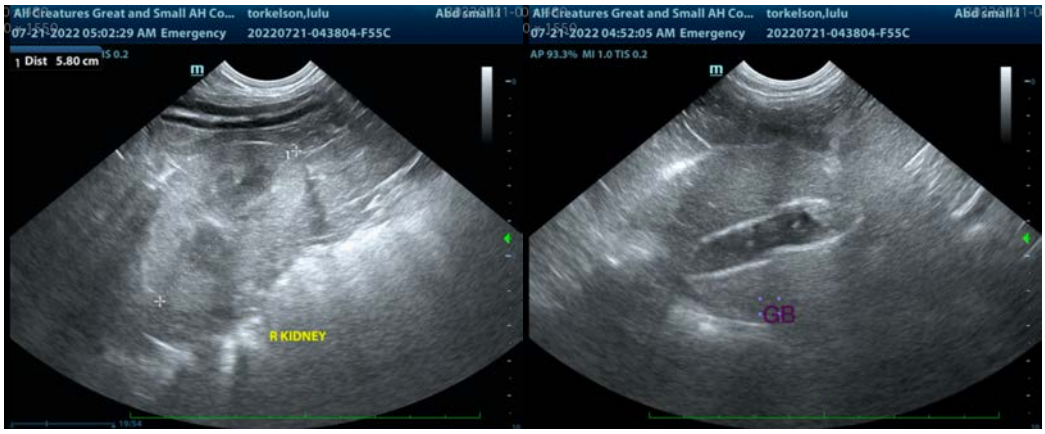

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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