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Clinical Sonography & Telecytology
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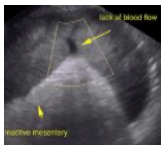
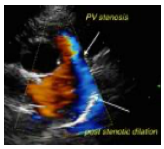
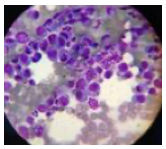
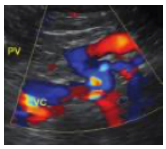





SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Loki Nedelec

SPECIES

Canine

BREED

Lab Mix

SEX

Neutered Male

AGE

11 Years

WEIGHT

39.8 Lbs.

INTERPRETED BY

Andrea Nicastro, DMV, Diplomate DACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Dr. Goodman

HOSPITAL NAME

Evandale-Blue Ash PH

REFERRING VET

Dr. Goodman

INVOICE

12798

DATE

12/2/21

PRESENTING CLINICAL SIGNS

History: medications given am: enalapril 20mg baby asprin 20mgÂ amlodipine 1.25 mg, fish oil given pm: enalapril 20mg, apoquel 8mg, cosaquinÂ. ALP 459, blood pressure is normal, specific gravity 1.033, inactive sediment, T4 normal, 3+ proteinuria

Abnormal PE/Chem/CBC/UA Results: See attached. Total Protein 4.9 Albumin b 1.9 ALP 459

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly distended with anechoic urine. The wall is diffusely thickened (up to 0.31 cm) with an irregular mucosal surface. No cystic calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

The prostate is normal in size (0.76 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney presented normal size (5.95 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The right kidney presented normal size (5.75 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. 1-2 small cortical cysts are observed at the lateral aspect. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is normal size (0.57 cm at cranial pole) (0.60 cm at caudal pole) (1.99 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

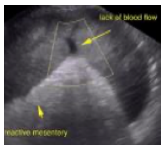
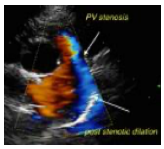
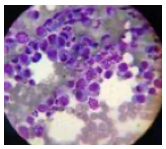
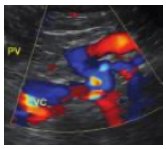
The right adrenal gland is normal size (0.80 cm at cranial pole) (0.55 cm at caudal pole) (2.45 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.47 cm at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen with minor changes consistent with age-related remodeling. No focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion.

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The gall bladder lumen is moderately distended. The wall is thin and smooth. Luminal contents are mostly anechoic. The cystic and common bile ducts are normal.

Gastrointestinal

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is mildly gaas distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive or overt infiltrative disease is noted.

Pancreas

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Based on the clinical history and sonographic changes, a protein-losing nephropathy is suspected. However, an elevated UPC would be necessary to confirm this diagnosis. An obvious underlying cause is not identified. Most cases are idiopathic. However, infection or neoplasia are possible underlying causes.

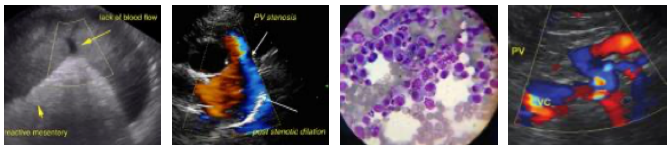
Secondary Findings

- The bladder wall changes could be consistent with cystitis or may be artifactual due to lack of full repletion. Correlation with clinical findings is recommended.
- The hepatic changes are consistent with age-related parenchymal remodeling and are not considered clinically significant at this time.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- A UPC is recommended, if not already performed.
- Consider three-view thoracic radiographs as well as infectious disease testing (i.e., heart worm and tick-borne disease testing) to further assess for possible causes of protein-losing nephropathy.
- A urine culture and sensitivity should also be considered.
- Consider transitioning to a prescription renal diet if the patient will tolerate it.
- To assess for occult infection to assess for concurrent causes of hypoalbuminemia, the following can be considered:

1. Pre- and postprandial serum bile acids



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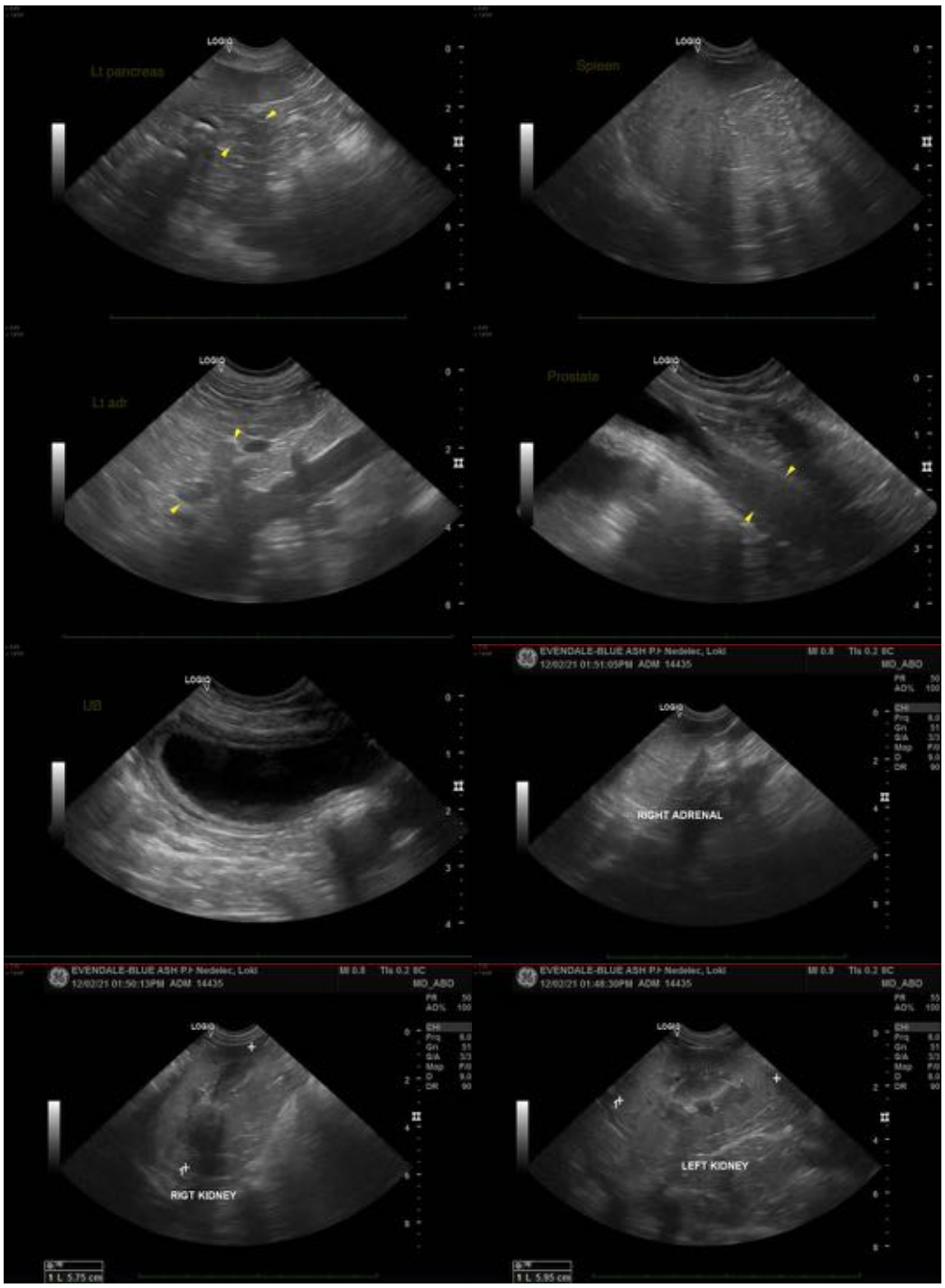
2. Resting cortisol level



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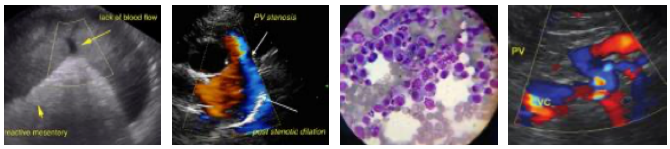

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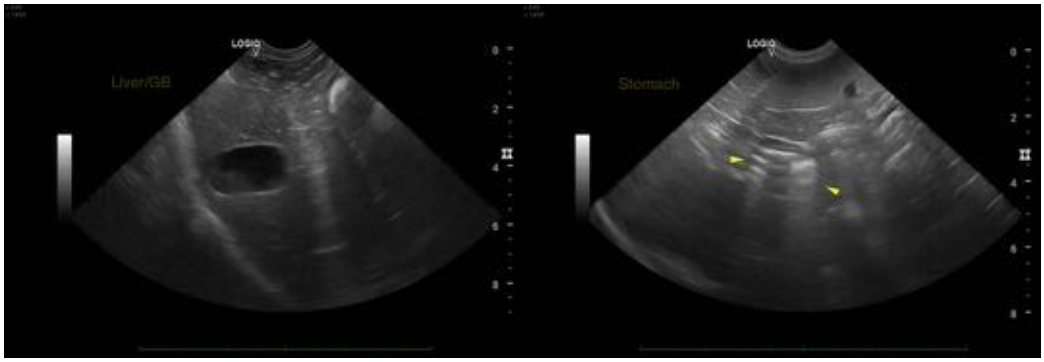

ADDENDUM

Additional history was provided by Dr. Goodman. The purpose for the ultrasound was due to a recent elevation in ALP. It had previously been normal and increased recently to 459. The patient is also having random shaking episodes. No pain elicited on examination. The patient was previously diagnosed 2 years ago with a protein losing nephropathy and has been monitored and well-controlled.

REVISED RECOMMENDATIONS

- Serial monitoring (i.e., every 3-4 months) of the patient's liver values is recommended. If the ALP continues to increase and/or if other liver values begin to rise, a repeat abdominal ultrasound +/- hepatic tissue sampling may be warranted.

- Given the recent shaking episodes, consider pre- and post-prandial serum bile acids to assess hepatic function.

- If the patient is exhibiting clinical signs of Cushing's disease, consider further testing (i.e., a low dose Dexamethasone suppression test or ACTH stimulation test).

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.

Andrea Nicastro, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
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