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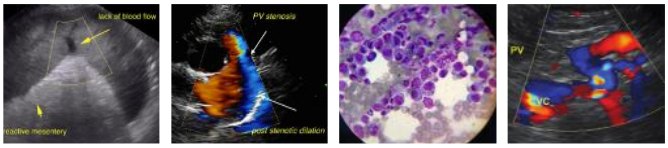
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Thor Marcus

SPECIES

Canine

BREED

Golden Retriever

SEX

Neutered Male

AGE

3 years

WEIGHT

60 lbs

INTERPRETED BY

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

IMAGING PERFORMED BY

Dr. Couser

HOSPITAL NAME

Willamette VH

REFERRING VET

Dr. Couser

INVOICE

10834

DATE

4/29/22

PRESENTING CLINICAL SIGNS

History: Presented 4/28 PM for 3 days duration inappetence and decreased water intake. History of chronic sinus issues due to presumptive congenital lack of nasal turbinates. Nasal discharge has become bloody/ brown in past few weeks. CT, rhinoscopy, nasal tissue biopsy performed in 2019: 1. CT: Nasal strucutral abnormality- turbinate destruction, frontal sinusitis, and medial retropharyngeal (left) and mandibular (bilateral) lymph node enlargement. 2. Rhinoscopy: Nasal structural abnormality- lack of nasal turbinates, inflamed nasal mucosa, severe mucopurulent nasal discharge 3. Lymph node cytology: Reactive lynphadenopathy due to inflammation 4. Nasal biopsy: Severe, chronic active rhinitis.

Abnormal PE/Chem/CBC/UA Results: 4/28 intake labs: CBC = WBC 25.90, NEU 22.3, MONO 1.77, EOS 0.01, BASO 0.17, CHEM 17 = CRE 12.3, BUN 81, PHOS >16.1, ALB 1.9, GLOB 5.4, rest wnl Lytes = Na 161, K 6.9, Cl 121 LAC = 0.84 (wnl) Nasal discharge In-house cytology = multiple rods and bacteria of mixed colonies, some in chains. UA with sediment = USG 1.034, pH 6.0, protein 500. Sediment: WBC 3/hpf, RBC 2/ hpf, suspect rods on automated sediment. Urine culture pending. UPC > 1.96 Baseline Cortisol = 5.27 g /dl (wnl) intake BP = 197/124 (144 MAP). Hospitalized on IVF, broad spectrum abx. 4/29 7am EPOC- 41%, Cl 129, CRE 11.2, K+ 6.3, BUN 78, pH 7.267 9 am Lepto witness test = NEG

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is mildly distended with anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone is normal.

The prostate is not definitively visualized due to its pelvic location.

The left kidney presented normal in size (7.41 cm in length); with a normal shape and smooth peripheral contours. The cortex is midly thickened and hyperechoic. There is a minimal to mild loss of corticomedullary distinction. A hyperechoic medullary band is observed a the corticomedullary junction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney presented normal in size (8.75 cm in length); with a normal shape and smooth peripheral contours. The cortex is midly thickened and hyperechoic. There is a minimal to mild loss of corticomedullary distinction. A hyperechoic medullary band is observed a the corticomedullary junction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.49 cm at cranial pole) (0.54 cm at caudal pole) (2.77 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 caudal pole of the right adrenal gland is visualized and is normal in size (0.61 cm in in width); with a normal shape, glandular echogenicity and detail. Surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.86 cm in width 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 contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed.

The gall bladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal/not seen.

Gastrointestinal
The gastric lumen is not distended. The gastric wall is 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. A few prominent mesentery lymph nodes are visualized, the largest measuring 2.35 cm in length.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Bilateral nephropathy. Given the clinical history, a protein-losing nephropathy is suspected. Most cases are idiopathic. However, protein-losing nephropathy can occasionally be secondary to infectious diseases (i.e., Lyme Disease), inflammatory disease or neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Consider further testing for Leptospirosis testing (i.e., blood and urine PCR). Serology can also be repeated in 7-14 days, as acute Leptospirosis cases may be negative for antibodies due to lack of seroconversion.

- Lyme testing (IgM and IgG) is also recommended.

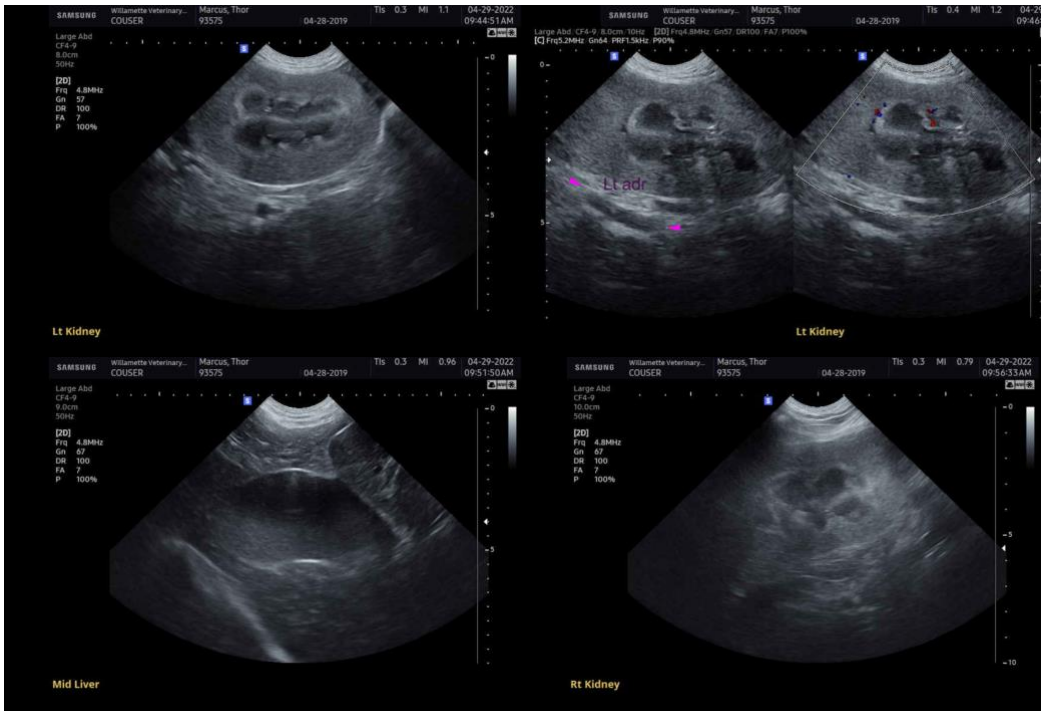
- Three-view thoracic radiographs should also be considered to assess for occult disease in the chest.

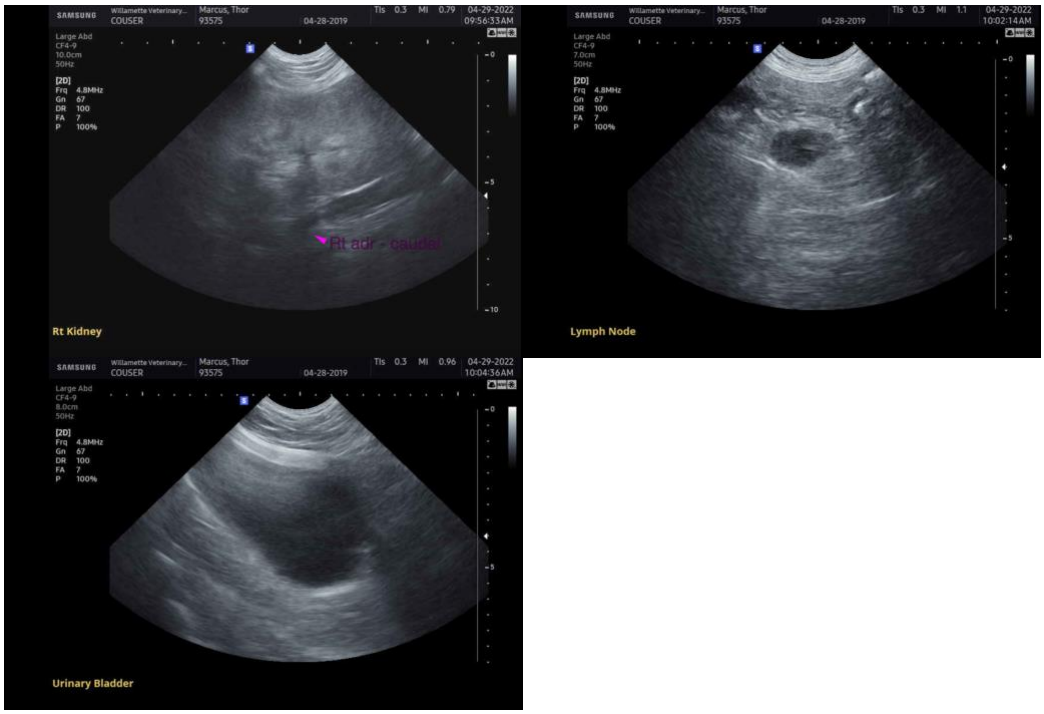
- Supportive care for renal failure is recommended including judicious IV fluid diuresis, gastric protectants, antiemetics and broad-spectrum antibiotic therapy (i.e., amoxicillin-clavulanic acid +/- enrofloxacin) while awaiting test results.

- Given the hypoalbuminemia, third spacing of fluids is of concern with fluid diuresis. Therefore, the

patient's weight and respiratory rate should be closely monitored. Urine output should also be monitored to assess for oliguria and/or anuria. Once the patient stabilizes, consider long-term maintenance for protein-losing nephropathy, including the following:

1. Angiotensin receptor blocker (i.e., telmisartan)
2. Anti-thrombotic therapy (i.e., clopidogrel)
3. Omega-3 fatty acids
4. Prescription renal diet
5. Anti-hypertensin medication, if needed.





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.

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