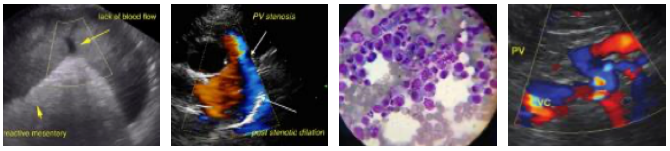
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Bauer Goebel

SPECIES
Canine

BREED
Chihuahua mix

SEX
Male, neutered

AGE
10 Yrs.

WEIGHT
4.3 kg.

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

IMAGING PERFORMED BY
Dr. Barthelemy

HOSPITAL NAME
Alpine 24 hour Pet Hospital

REFERRING VET
Dr. Drohan

INVOICE
14930

DATE
5/9/23

PRESENTING CLINICAL SIGNS

History: Presented for pre-dental exam - grade 4 pdd. Hyporexia for 1 week.
Abnormal PE/Chem/CBC/UA Results: Marked hypoalbuminemia at 16. Urinalysis showed pyuria, hematuria, proteinuria. USG 1.030.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with mostly anechoic urine. The wall is normal in thickness with a slightly irregular mucosal surface. No distinct calculi are observed. The region of the trigone is normal. The post prostatic urethra appears mildly thickened (up to 0.42 cm in width).

The prostate is normal in size (0.50 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal size (4.08 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is isoechoic relative to the spleen, mildly thickened and there is mild to moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The left kidney is normal size (4.08 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (4.32 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The region of the left adrenal gland is evaluated. The gland is not definitively visualized. However, no obvious abnormalities are observed in this region.

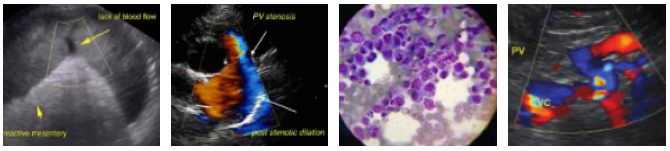
The right adrenal gland is normal size (0.54 cm at cranial pole) (0.41 cm at caudal pole); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (xxx cm in width at the level of the hilus) with a normal capsular contour. The parenchyma is subtly mottled in appearance. 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 lumen is moderately



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distended. The wall is thin and smooth. A small amount of aggregated echogenic suspended sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. 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 disease is noted.

Pancreas

The left limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely hyperechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic 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:

- The bilateral renal changes are most consistent with chronic interstitial nephrosis/nephritis.
- Subjective proximal urethral thickening. This may be a normal variant for this patient or may be secondary to urethritis or emerging neoplasia (i.e., transitional cell carcinoma).

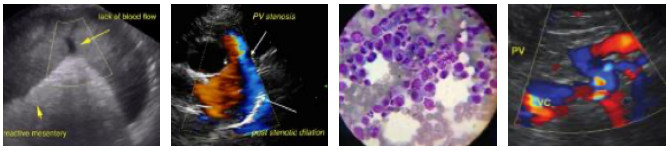
Secondary Findings:

- The splenic parenchymal changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis, splenitis or antigenic stimulation with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- If proteinuria persists in the absence of infection, a UPC should be performed.
- Regarding the hypoalbuminemia, considerations include renal loss, GI loss or decreased production (i.e., secondary to liver disease). Therefore, further workup should include the following:

    1. Pre- and post-prandial serum bile acids to assess hepatic function



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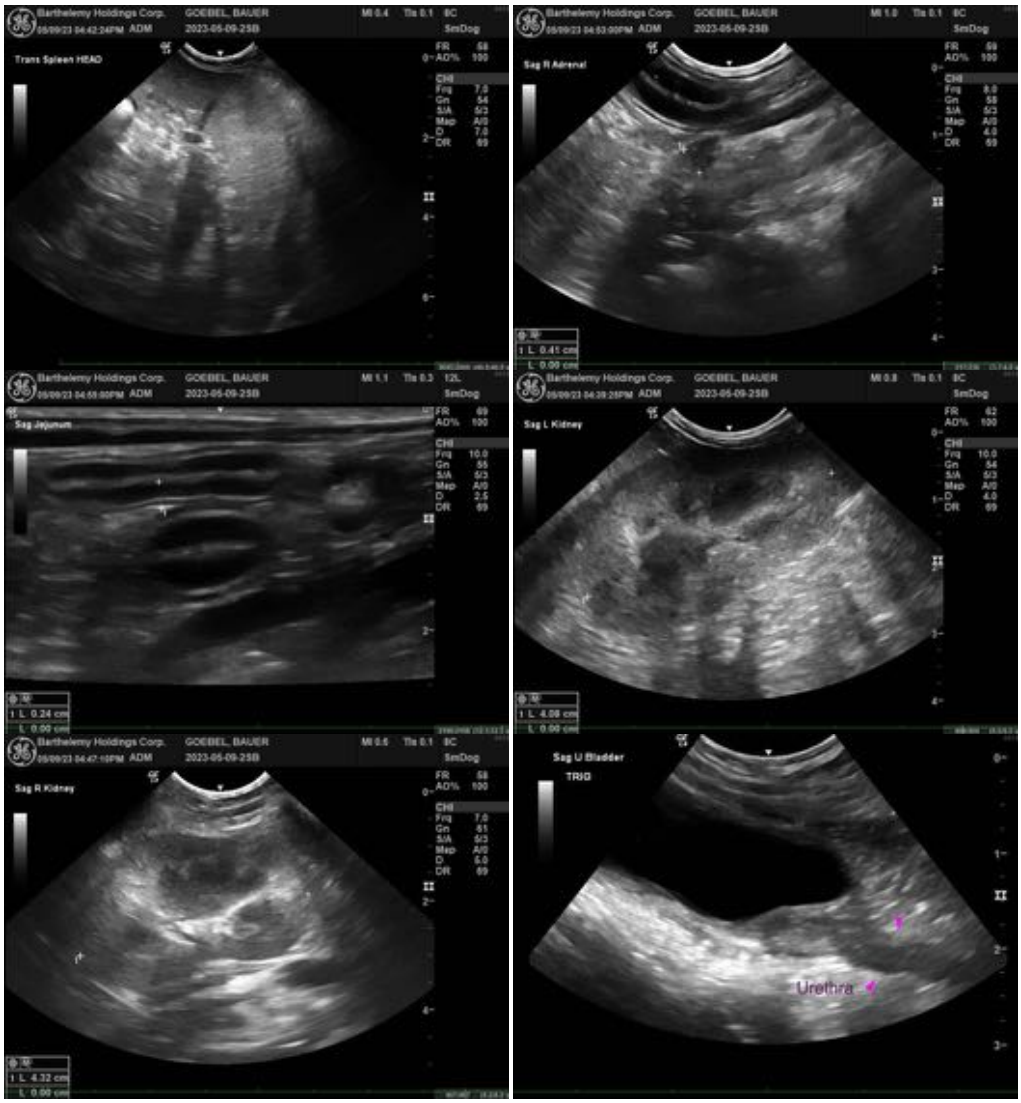
2. A fecal evaluation for ova/Giardia
3. A resting cortisol level to screen for hypoadrenocorticism. If resting cortisol level is < 2.0 mcg/dL, an ACTH stimulation test is recommended.
4. If the above diagnostics are inconclusive, renal protein loss may be the culprit and further diagnostics/treatment for a protein losing nephropathy may be warranted.

- The above diagnostics are recommended before deciding whether corticosteroid use is indicated.
- Regarding the possible urethral thickening, consider a urine BRAF test if the urine culture is negative and clinical suspicion for neoplasia is high.



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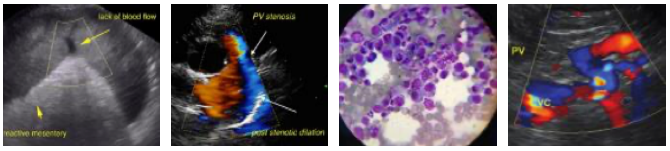

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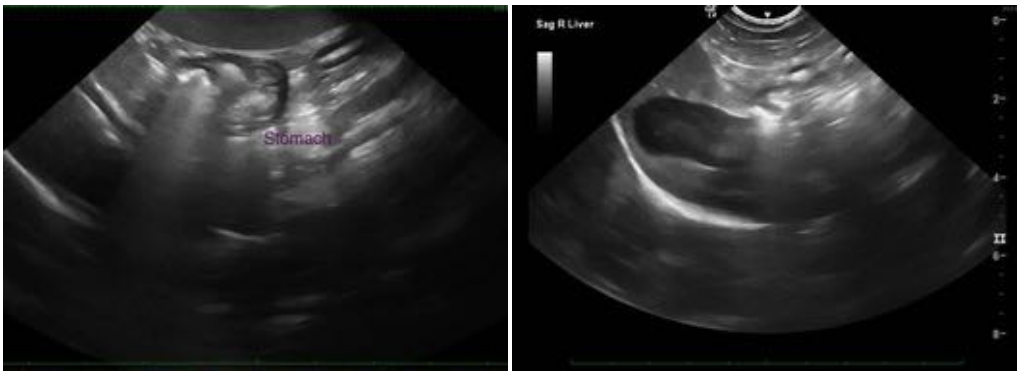

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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