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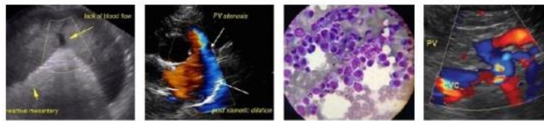


THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Roofus Schoen

SPECIES

Canine

BREED

Bichon

SEX

Neutered Male

AGE

10 years

WEIGHT
7.6 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Hamilton Region Emerg Clinic

REFERRING VET

Dr.Bourque

INVOICE

10836

DATE

4/29/22

PRESENTING CLINICAL SIGNS

History: Transfer from Emergency hospital. Treated for pancreatitis and IBD flare up. Still not really doing well. Distended abdomen which was soft to palpate caudally but very tense cranially. Diarrhea, decreased appetite.
Abnormal PE/Chem/CBC/UA Results: WBC elevated 30, Neuts elevated 25, Monocytes elevated, Basophils elevated. SDMA elevated 18, TP decreased 38, Albumin decreased and Globulins decreased.

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 is moderately distended. A moderate to large amount of suspended, echogenic debris is observed within the lumen. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 1-2 cm, are normal.

The prostate is normal in size (0.98 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal in size (3.93 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. A few, small cortical cysts are seen. A few, small nonobstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (4.78 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. A few, small cortical cysts are seen. A few, small nonobstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.36 cm at cranial pole) (0.47 cm at caudal pole) (1.94 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.

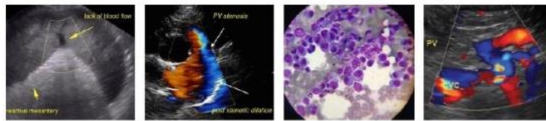
The region of the right adrenal gland is evaluated. No obvious pathology is observed in this region.

Spleen

The spleen is normal in size (0.74 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 prominent in size with swollen curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and exhibits mild heterogeneity. No distinct 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 anechoic. The cystic and common bile ducts are normal/not seen.

Gastrointestinal
The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The small intestinal lumen is segmentally distended with fluid (mild). The small intestinal wall is diffusely thickened (up to 0.58 cm) with a normal layering pattern. There is evidence of mucosal fogging. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

Pancreas
The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic 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
Reactive mesentery is observed throughout the abdomen. Trace free fluid is observed. A few visible/prominent (<0.5 cm) mesentery lymph nodes are seen.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

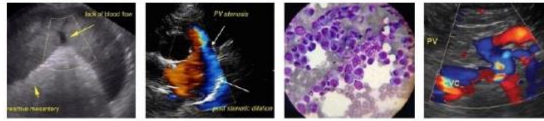
- Given the patient's clinical history and sonographic changes, a protein-losing enteropathy (i.e., inflammatory bowel disease, infectious/parasitic disease, lymphangiectasia, infiltrative neoplasia (i.e., lymphoma)) is considered likely. Diffuse peritonitis is present, likely secondary to bowel pathology.

Secondary Findings

- Age-related pancreatic remodeling. Low-grade pancreatitis may be present, particularly if a positive Murphy's sign is present.
- Bilateral, chronic, age-related renal changes with nonobstructive nephrolithiasis and dystrophic mineralization.
- The urinary bladder debris could be consistent with cells, crystals and/or exfoliated material.
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Fecal evaluation for ova and Giardia
- Prophylactic deworming with Fenbendazole at 50 mg/kg once a day for 5 days is recommended. Repeat above protocol in 3 weeks.
- GI Panel (send to Texas A&M)



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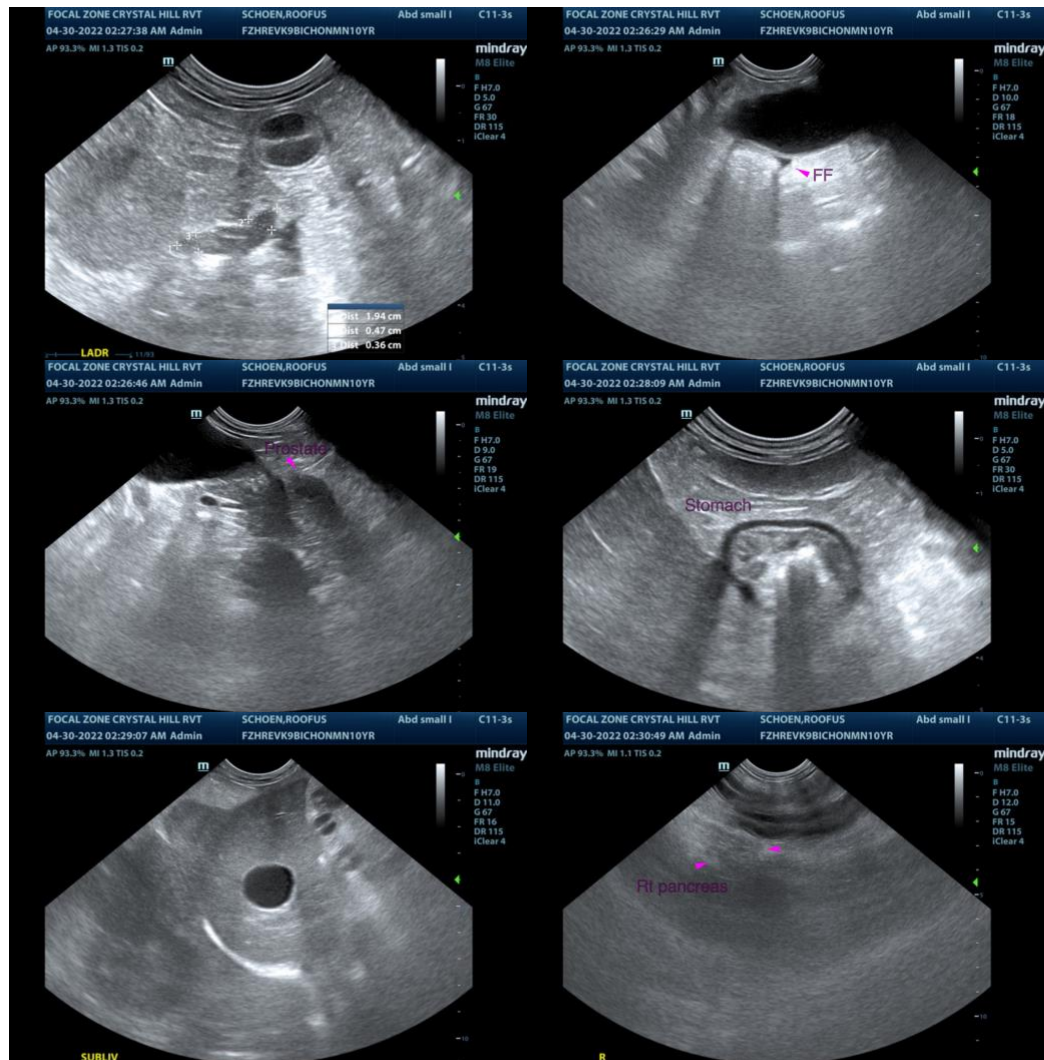
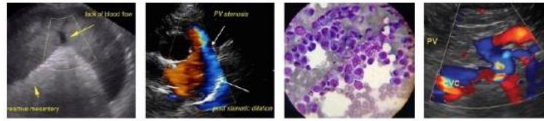
- In order to get a definitive diagnosis, gastrointestinal biopsies, preferably surgical would likely be necessary. Thoracic radiographs should be performed prior to any anesthetic event.
- To further assess for concurrent causes of hypoalbuminemia, consider the following:

  1. A resting cortisol level to screen for hypoadrenocorticism. If resting cortisol level is < 2.0 mcg/dL, an ACTH stimulation test is recommended.
  2. Pre-and postprandial serum bile acids to assess for occult hepatic dysfunction
  3. UPC (if proteinuria is present)

- While awaiting test results, supportive care is recommended, including fluid therapy, oncotic support (i.e., Vetastarch or canine albumin), gastric protectants, antiemetics +/- pain medication.





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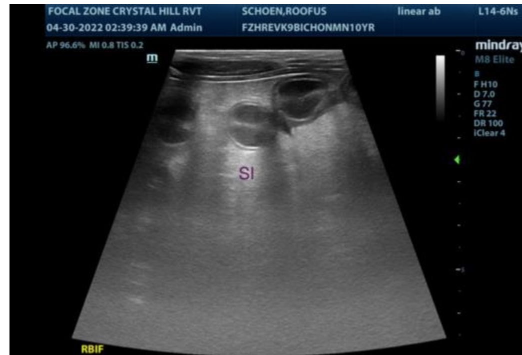

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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