



PATIENT PRESENTING CLINICAL SIGNS

Henry Dickert

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

Neutered Male

AGE

15 years

WEIGHT

5 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

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DVM, Diplomate ACVIM
(Small Animal Internal
Medicine)

HOSPITAL NAME

Veterinary Dent Care

REFERRING VET

Dr. Suzy Shannon

INVOICE

11046

DATE

6/9/22

Clinical Exam Findings:

Patient presented for a dental consult for periodontal disease. Owners are dentists and are concerned his teeth are causing him discomfort. Two years ago, he had a dental cleaning and hemorrhagic gastroenteritis during the procedure with anesthetic complications. He had an abdominal u/s performed by an internist and the report states thickened intestines were found. After that, Henry had chronic intermittent vomiting (not regurgitation) and Tylan powder resolved the problem. He is now not experiencing vomiting but is experiencing urinary incontinence and vocalization for attention or food. Historically, 2 years ago GI panel from TX A and M showed elevated PLI. He eats i/d low fat diet. Most recent labwork reveals low normal albumin 2.8, urine specific 1.018 with 2+ protein in urine and bacteria, elevated PLI.

Abnormal lab-work values:

Most recent lab-work reveals low normal albumin 2.8, urine specific 1.018 with 2+ protein in urine and bacteria, elevated PLI.

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 moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is normal in size (0.72 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 (3.27 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

The left kidney is normal in size (3.46 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Pyelectasia is present (0.29 cm in the longitudinal plane). A few, small cortical cysts are seen. There is no evidence of nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.38 cm at cranial pole) (0.48 cm at caudal pole) (1.53 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are



PATIENT

unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Henry Dickert

SPECIES

The right adrenal gland is borderline enlarged (0.87 cm at cranial pole) (0.57 cm at caudal pole) (0.51 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.

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Spleen

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The spleen is normal in size (0.78 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.

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Liver

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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. The portal vein to caudal vena cava ratio is approximately 1: 1.

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The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of echogenic debris is observed within the lumen most of which is gravity dependent, and some of which is suspended. The cystic and common bile ducts are normal/not seen.

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Gastrointestinal

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The gastric lumen contains a 1.29 cm hard, shadowing structure and a small amount of fluid. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent at the time of this study. The small intestinal lumen is not dilated. The small intestinal wall is normal to borderline thickened (up to 0.36 cm) with a normal layering pattern. There is evidence of mucosal fogging in some segments. Discreet masses are not identified. The colonic wall is normal. The colonic lumen contains shadowing fecal material. There is no obvious evidence of an obstructive pattern at the time of this study.

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Pancreas

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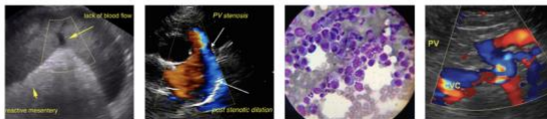
The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation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

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Free Abdomen

Trace free fluid is observed. The abdominal lymph nodes are normal/not visible.

Other

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The small intestinal wall changes, in conjunction with the clinical history, are suggestive of a chronic protein-losing enteropathy. Differentials include inflammatory bowel disease, lymphangiectasia, infectious/parasitic disease, infiltrative neoplasia (less likely), other. However, concurrent causes of hypoalbuminemia (i.e., hepatic disease, protein-losing nephropathy), cannot be completely excluded.
- The trace ascites is likely secondary to low oncotic pressure with concurrent bowel pathology.
- The shadowing structure within the gastric lumen is most consistent with a foreign body. It appears nonobstructive at the time of this study.

Secondary Findings

- The bilateral renal changes are most consistent with chronic interstitial nephrosis/nephritis with right pyelectasia.
- Borderline right adrenomegaly
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- 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. Correlation with the patient's liver values is recommended.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- To further evaluate for a protein-losing enteropathy, consider the following:



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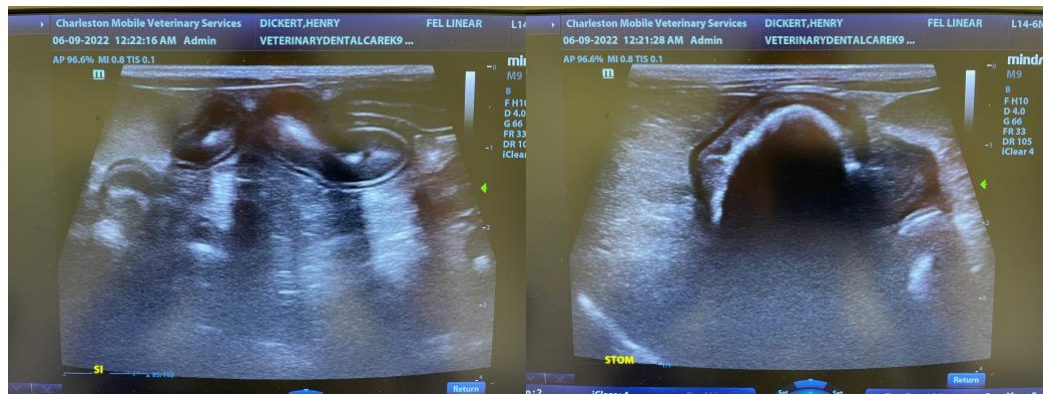
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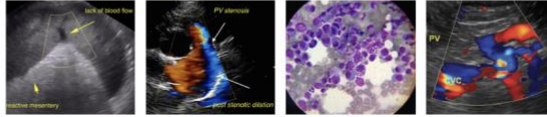
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1. Malabsorption panel, including serum cobalamin and folate, TLI and PLI, is also recommended
 2. Fecal evaluation for ova and Giardia
 3. Prophylactic deworming with Fenbendazole at 50 mg/kg once a day for 5 days is recommended. Repeat above protocol in 3 weeks.
 4. A 6-week limited antigen diet trial to assess for food allergies
 5. Depending on the results of the above diagnostics/therapeutics, endoscopic or surgical gastrointestinal biopsies may be necessary to get a definitive diagnosis. Thoracic radiographs should be performed prior to anesthesia, particularly given the patient's age.
- To further evaluate for concurrent causes of hypoalbuminemia, consider the following:
 1. UPC
 2. Pre-and postprandial serum bile acids
 - Regarding the shadowing within the gastric lumen, consider repeat abdominal imaging (i.e., ultrasound or abdominal radiographs) in 5-7 days to determine if the material has passed from the stomach.





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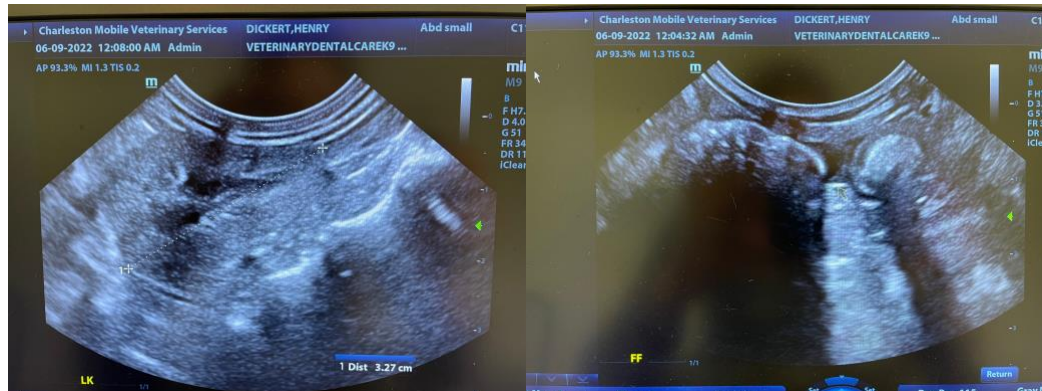
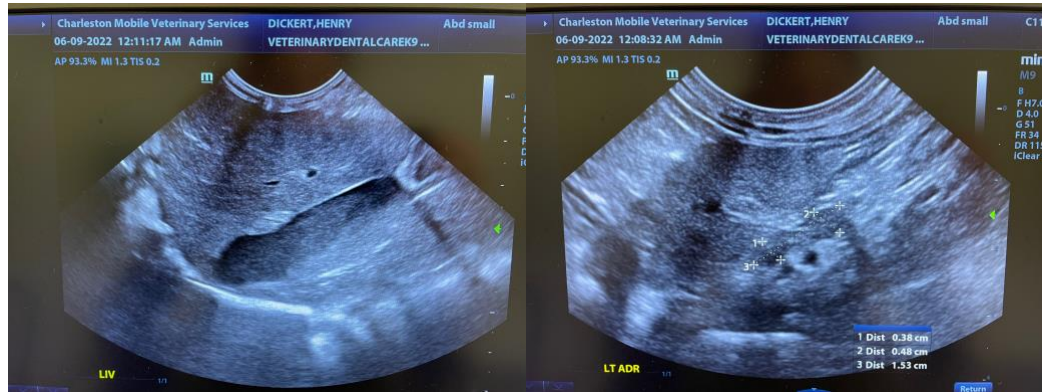
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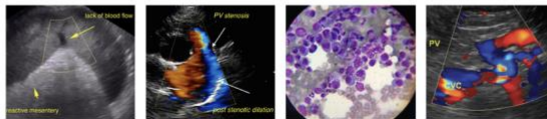
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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