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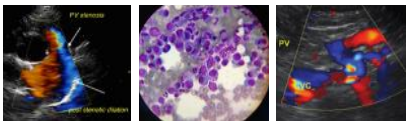
IntraPet.com



SonoPath
Clinical Sonography & Telecytology
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DATE

1-7-2022

PATIENT

Marcus Li

SPECIES

Canine

BREED

Havanese

SEX

Male Neutered

AGE

12-20-2015

WEIGHT

13.2 Lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Stephanie Pearce RDCS, RVT

HOSPITAL NAME

Northwind Animal Hospital

REFERRING VET

Dr. Wilson

INVOICE

10124

PRESENTING CLINICAL SIGNS

History: p presented on 1/3/22 for a second opinion in relation to ascites that appeared late November around the time p had a lumpectomy. p was started on Lasix BID late December and was reduced to SID 1 week later. Ascites worsened on tapered dose according to o. P is also chronically on Prednisolone for vomiting, has been on steroids for 2 years. Finally, p has been experiencing chronic intermittent diarrhea for the past 2 months. Heart murmur (3/6).

Current Medications: Lasix and Prednisolone (uncertain of dose/duration - prescribed by rDVM, records not in).
Lab Results: 1/3/22 - TP 2.7, Albumin 1.3, Globulin 1.4, neu 14.1, SDMA 19, CA 3.5.
Radiographs: Rads performed by rDVM, no abnormalities according to o.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly distended. The wall is normal in thickness with a smooth mucosal surface. Luminal contents are anechoic. No cystic 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 size (4.26 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney presented normal size (4.21 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.59 cm at cranial pole) (0.45 cm at caudal pole) (1.41 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 (0.49 cm at cranial pole) (0.47 cm at caudal pole) (1.50 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 (0.79 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 enlarged with slightly swollen peripheral contours. The parenchyma is hyperechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall

bladder lumen is moderately distended. The wall is thin and smooth. A small amount of aggregated echogenic partially dependent debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

The gall bladder lumen is moderately distended. The wall is thin and smooth. A small to moderate amount of echogenic debris is observed within the lumen. Some of which is gravity dependent and some of which is suspended. The cystic and common bile ducts are normal.

Gastrointestinal
The gastric lumen is distended with ingesta and irregular shadowing material. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is segmentally dilated with fluid and chyme. The small intestinal wall is normal to mildly thickened (up to 0.41 cm), with apparent retention of the normal layering pattern. There is evidence of mucosal fogging in several segments. In a few segments, there is suggestion of mucosal veneer striations. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

Pancreas
The right limb is prominent in size with minimal deviation from the normal peripheral contours. The parenchyma is hypoechoic relative to surrounding omental fat and slightly mottled in appearance. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated.

Free Abdomen
A large amount of slightly echogenic free fluid is observed withing the abdominal cavity. The mesentery throughout the abdomen is hyperechoic. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Based on the clinical history and sonographic changes, a protein-losing enteropathy is suspected. Differentials include inflammatory bowel disease, lymphangiectasia, infectious/parasitic disease, infiltrative neoplasia (i.e., lymphoma), other.

- The pancreatic changes are suggestive of mild pancreatitis. The hepatic parenchymal changes are likely secondary to chronic corticosteroid administration. However, other hepatopathies cannot be completely excluded.

- The diffuse ascites is likely secondary to low oncotic pressure. However, increased hydrostatic pressure (i.e., secondary to congestive heart failure) or increased vascular permeability, cannot be completely excluded. Correlation with the patient's echocardiogram results is recommended.

Secondary Findings

- The gastric luminal contents likely represent ingesta_+/- concurrent foreign material.

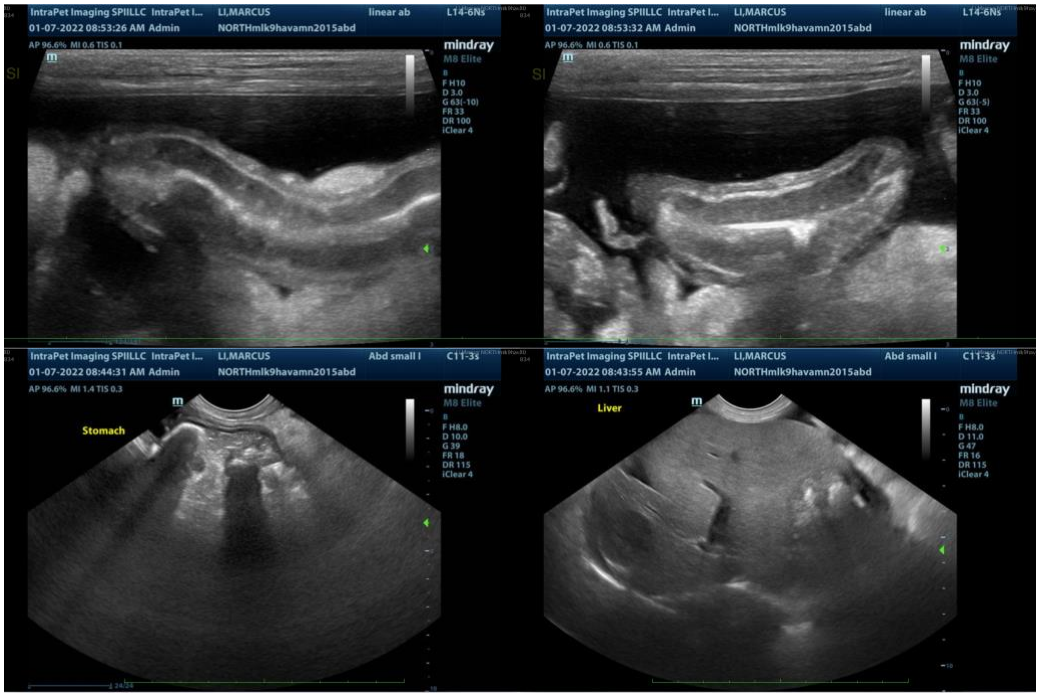
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

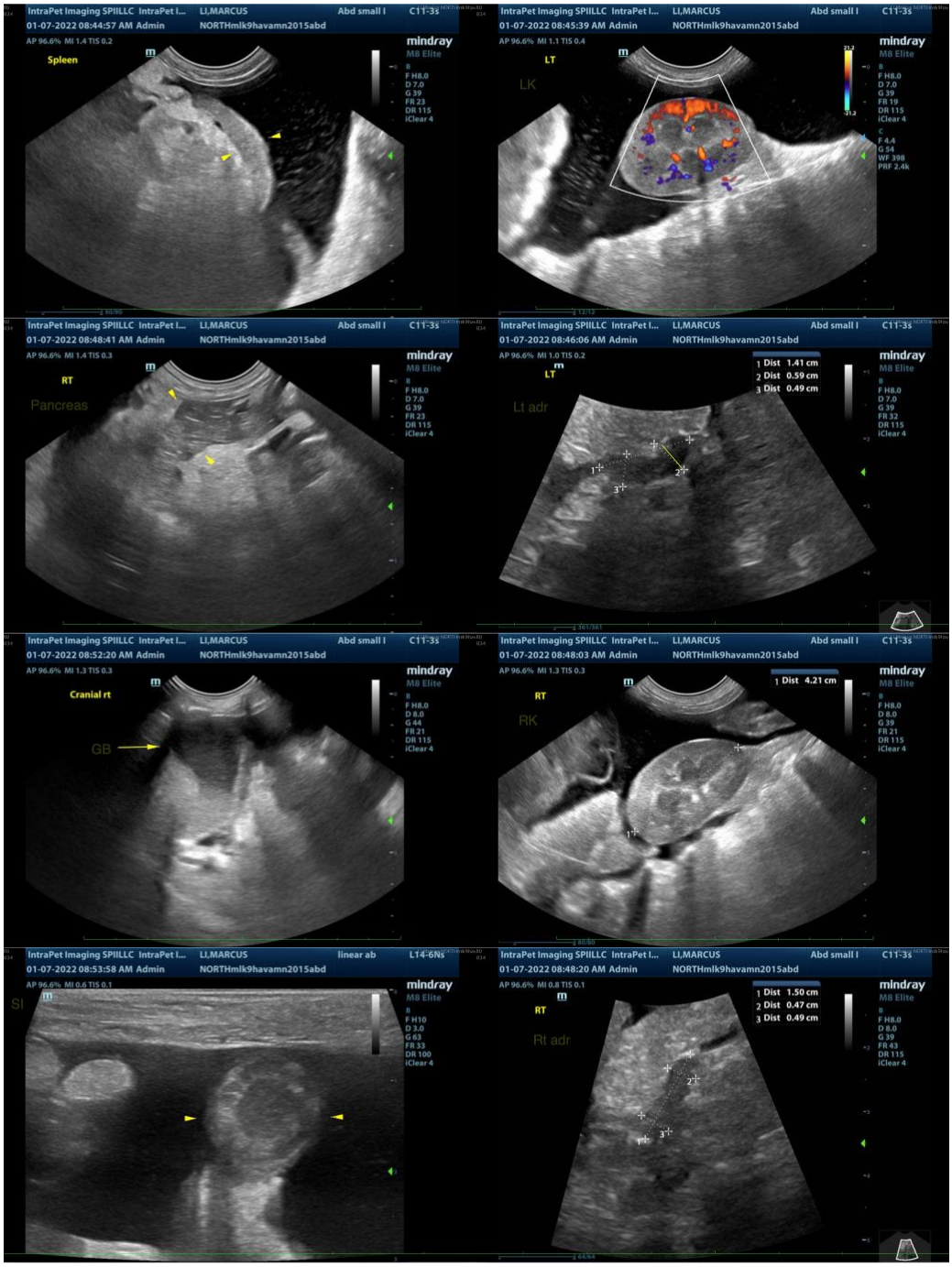
- Malabsorption panel including serum cobalamin and folate TLI and PLI

- Fecal evaluation for ova and Giardia.

- Submission of the abdominal fluid for analyses and culture is recommended.
- Ultimately endoscopic or surgical gastrointestinal biopsies would be necessary to get a definitive diagnosis. Ideally, the patient would be weaned off corticosteroids prior to biopsy procedure, as steroids can mask underlying pathology.
- Three-view thoracic radiographs should be performed prior to anesthesia, as hypoalbuminemia can cause third-spacing of fluids (i.e., pleural effusion).
- To further investigate for concurrent causes of hypoalbuminemia, consider the following:

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





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)
info@SonoPath.com