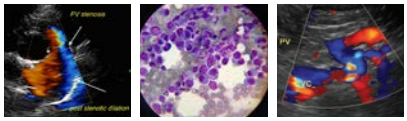
IMAGING PERFORMED BY

IntraPet.com



SonoPath

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DATE

4/27/23

PATIENT

Hermes Fugate

SPECIES

Feline

BREED

DLH

SEX

Neutered Male

AGE

8/22/19

WEIGHT

8.46 Pounds

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

HOSPITAL NAME

Northwind AH

REFERRING VET

Dr. Wilson

INVOICE

46996

PRESENTING CLINICAL SIGNS

P presented 9/2022 for chronic diarrhea x 4 months with weight loss. O states that bowel movements are discolored and very loose. P does have a hx of pruritic dermatotis as well. P has been treated with metronidazole, prednisolone and probiotics, but owner reports no improvement. Fecal submitted 10/2022 was negative for parasites.

Current Medications: 9/2/22: Metronidazole 10 mg/ml: Give 0.6 cc orally twice daily until gone. SHAKE WELL. Chicken Flavor. Prednisolone 15 mg/5ml: Give 1.0 ml by mouth every 12 hours for 10 days, then once daily for 10 days, then every other day unless otherwise directed. May cause increased thirst and appetite.
Proviable DC Caps: Give one capsule on food once daily until gone.
Lab Results: 4/21/23 GI Panel, Chem 25, CBC, T4 pending
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Stephanie Warga RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is minimally distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi. Lack of urine distention prevents full evaluation of the urinary bladder.

The left kidney has a normal shape and size (3.52 cm) with corticomedullary rim sign. Overall echogenicity is normal with mildly reduced corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.38 cm) with corticomedullary rim sign. Overall echogenicity is normal with mildly reduced corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.39 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.42 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is normal/borderline small (0.50 cm), echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed. The bile duct appears slightly prominent and tortuous and 0.32 cm.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.36cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall thickness is normal to slightly increased. Bowel loops follow a typical curvilinear path with distinct wall layering, but some areas display a prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. Duodenum wall measures 0.27 cm. Jejunum wall measures 0.21 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. The colon is significantly distended with non-formed/liquid fecal material. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

There is scant free abdominal fluid. There are occasional prominent mesenteric lymph nodes visualized, one measures 0.30 cm. The omentum is generally of normal echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Mildly reduced corticomedullary distinction in both kidneys with corticomedullary rim sign – Clinical significance uncertain, can be seen in normal patients and in cases of ethylene glycol toxicity, FIP, chronic interstitial nephritis, and leptospirosis.
- Prominent, mildly tortuous bile duct – This is likely incidental at this time. Recommend continued monitoring.
- Prominent muscularis layer of the small intestine – The small intestinal wall changes could be consistent with an underlying inflammatory process. These types of changes can sometimes be seen in normal older cats. Correlate with clinical signs.
- Fluid distended colon – This is consistent with the diarrhea reported.
- Small amount of free abdominal fluid
- Occasional prominent mesenteric lymph nodes – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No focal lesions are visualized associated with the gastrointestinal tract to explain the chronic diarrhea reported. The muscularis layer is slightly prominent, this can be an indicator of underlying primary gastrointestinal disease. If screening for underlying metabolic disease is normal, then consider further

evaluation for a primary enteropathy.

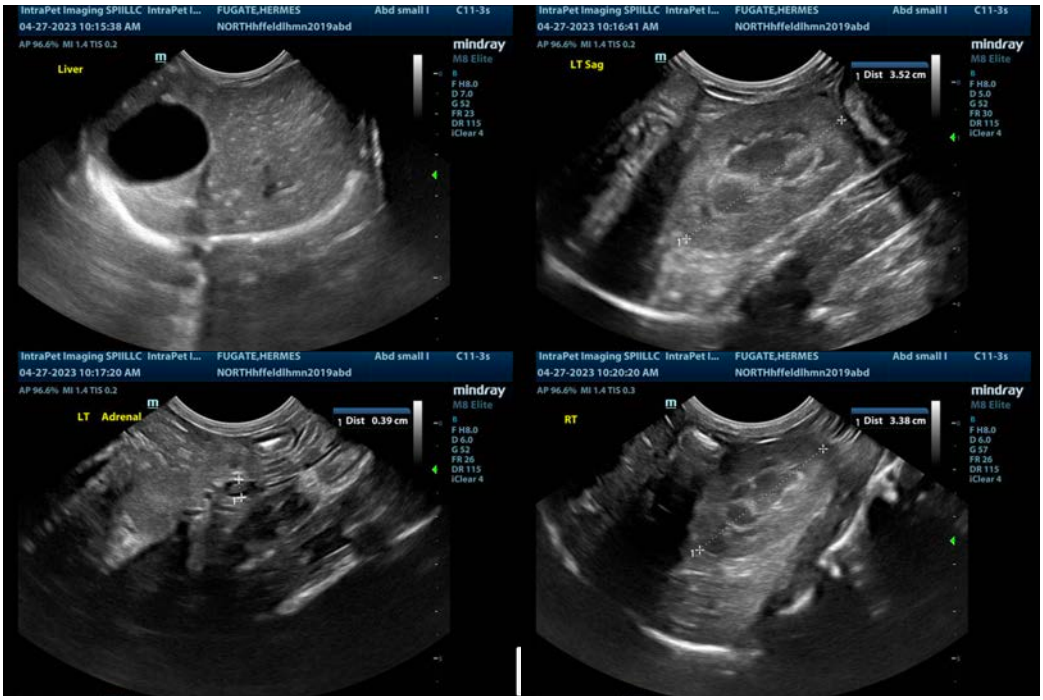
Consider such differentials as food allergy/dietary intolerance, GI parasitism, pancreatitis, dysbiosis, recurrent dietary indiscretion, IBD and less likely neoplasia, etc. In a pet this young, underlying neoplasia or IBD would be much less likely. Dysbiosis or food allergy/dietary intolerance and exocrine pancreatic insufficiency would seem the most likely differentials.

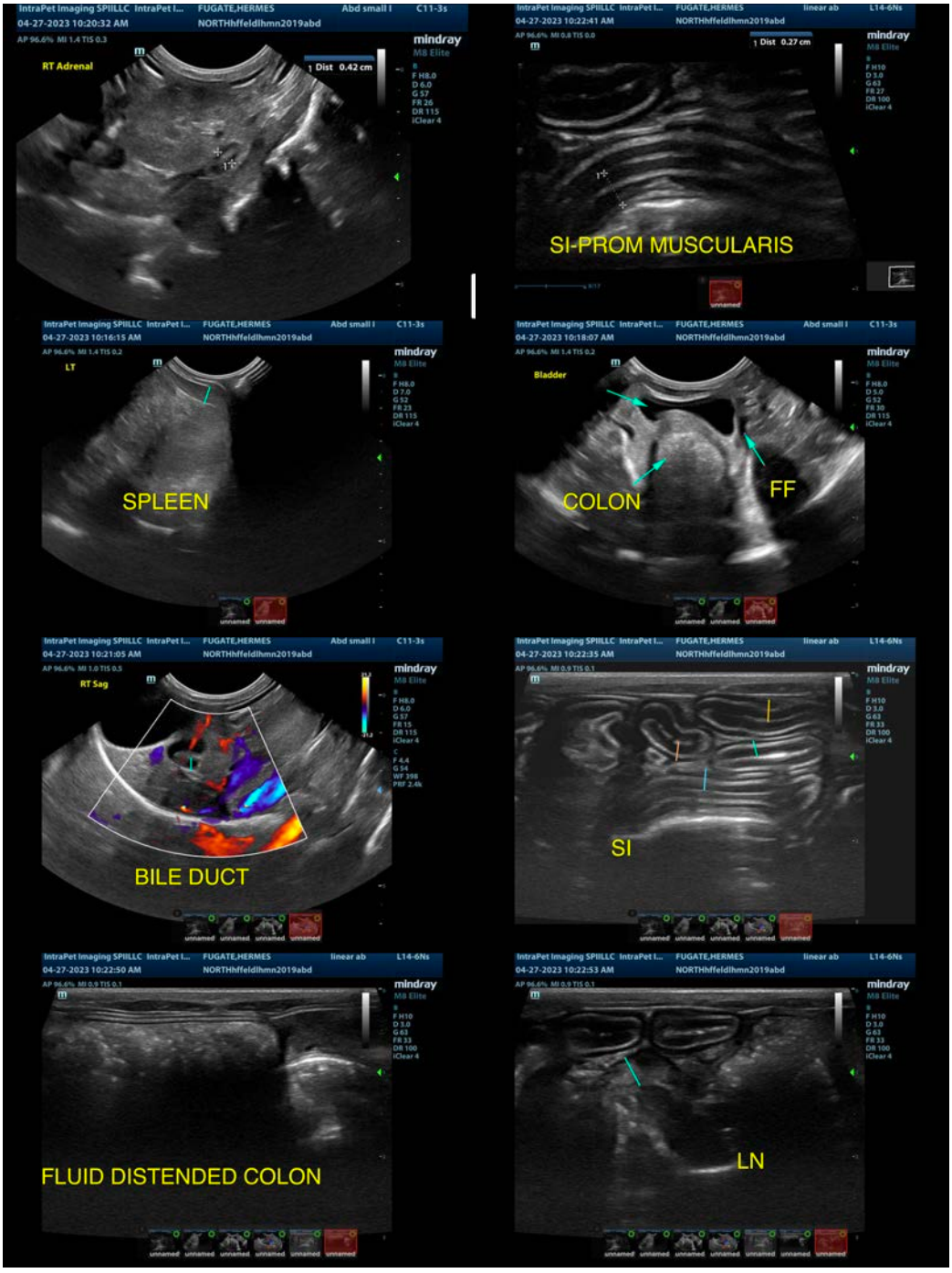
- Consider a novel protein/hydrolyzed protein diet (exclusively at least 4-6 weeks)
- Consider a GI panel to Texas A&M for evaluation of B12 levels, folate, PLI/TLI etc.. to further evaluate for pancreatic/small intestinal disease. (I believe this is currently pending.)
- Recommend chronic probiotic therapy. If there has been no response to this, consider a different formulation and prolonged use. If dysbiosis is thought very likely, you could consider a fecal transplant.

If symptoms are persisting despite taking these steps, consider obtaining GI biopsies. (This patient should be ideally off of any steroid therapy for at least two weeks prior to biopsy).

The significance of the corticomedullary rim sign is not clear. Correlate with a urinalysis +/- urine culture and blood pressure if appropriate.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.




RT Adrenal
SI-PROM MUSCULARIS
LT
SPLEEN
Bladder
COLON
FF
RT Sag
BILE DUCT
SI
FLUID DISTENDED COLON
LN

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)
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