



DATE PRESENTING CLINICAL SIGNS

6/30/22 Patient has history of GI illness. Presented 6/29/22 with persistent vomiting, abnormal stools, and painful abdomen. Not eating or drinking.

PATIENT

Enzo Schlough
Current Medications: Cobalamine and Folate supplement.
Lab Results: Normal ACTH response in March 2022; GI panel in May 2022 revealed persistent hypcobalaminemia and hypofolatemia, normal PLI and TLI.
Date of Previous IntraPet Ultrasound: No previous.
SPECIES Sedation: Not required to complete full diagnostic ultrasound.
Canine Stat Report: Not requested.

SPECIES

Canine

BREED

German Shepherd

SEX

Neutered Male

AGE

9/30/20

WEIGHT

48.6 Pounds

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Happy Tails VH

REFERRING VET

Dr. Calpeno

INVOICE

39174

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Prostate (neutered) is normal in size, echotexture and echogenicity for a neutered male.

The right kidney is normal in size (5.9 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

The left kidney is normal in size (5.68 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Adrenal Glands

The right adrenal gland is normal in size (2.34 cm long x 0.70 cm at the cranial pole and 0.76 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (2.5 cm long x 0.54 cm at the cranial pole and 0.59 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. It is moderately fluid distended. No evidence of foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of peritoneal effusion.

Mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

PRIMARY FINDINGS

- Mild gastric distention – likely mild gastritis/gastric ileus secondary to the other underlying gastrointestinal disease. No evidence of foreign material to support obstruction.

SECONDARY FINDINGS

- Gallbladder debris – Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.
- Reactive mesenteric lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely.

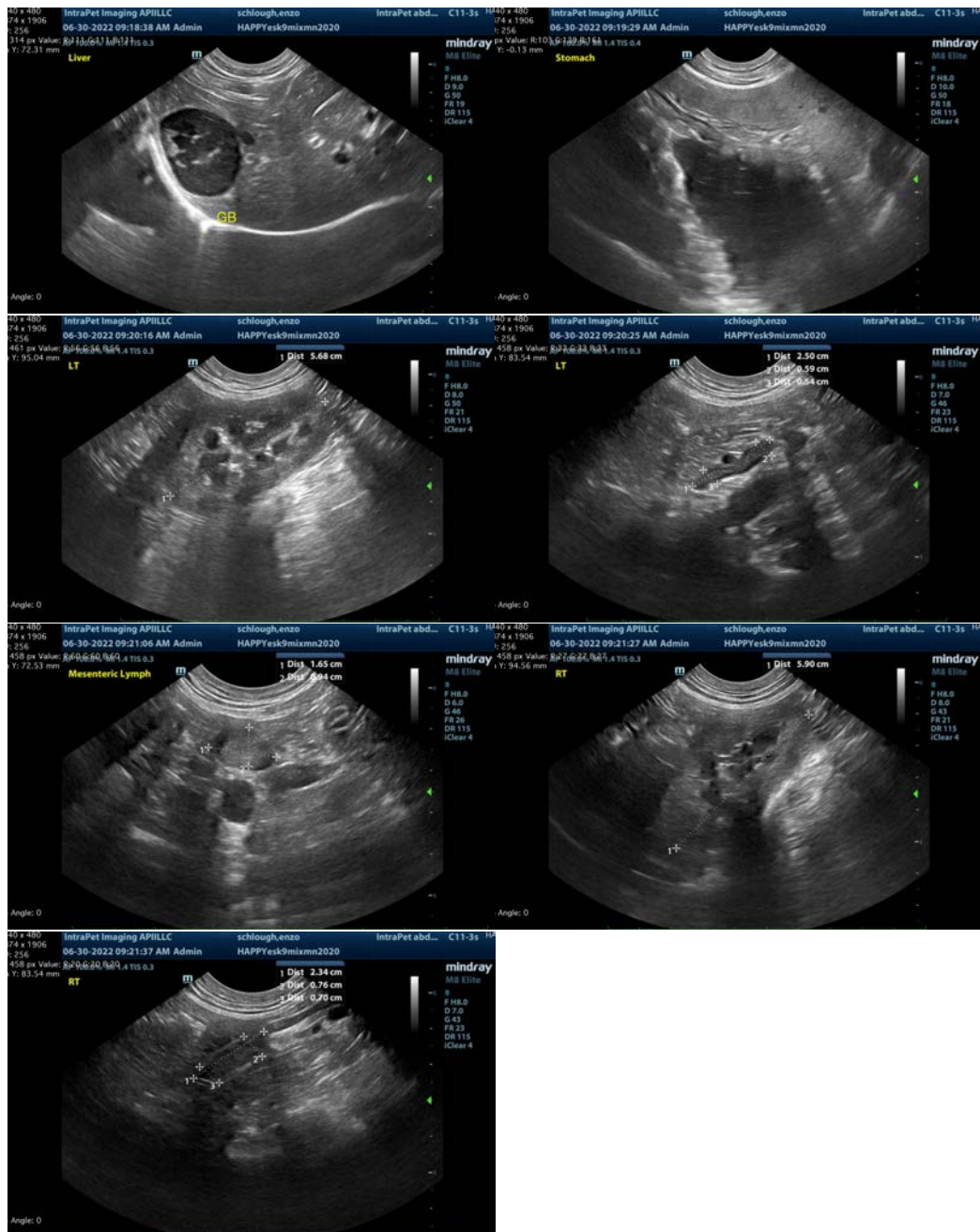
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given this patient's breed combined with the low folate and cobalamin, there is a high index of suspicion for exocrine pancreatic insufficiency, and recommendations include rechecking the TLI to see if the value has dropped, especially if it was in the lower part of the reference range when initially evaluated.

If exocrine pancreatic insufficiency is not diagnosed, then the low folate and cobalamin is suggestive of diffuse bowel disease, and recommendations include

- A fecal enteropathogen PCR panel to Texas A&M GI Laboratory is recommended for further evaluation of possible infectious disease.

- Transition to a novel or hydrolyzed protein diet to address potential food allergy as a cause for diffuse bowel inflammation and low folate and cobalamin.
- Ultimately, if another underlying cause cannot be determined, and addressing infectious disease, possible food allergy, etc. do not eliminate clinical signs, biopsies of the gastrointestinal tract may be warranted to definitively diagnose and therefore manage this patient's underlying condition.



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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