

**PATIENT**

Amy Ghaith

PRESENTING CLINICAL SIGNS

Weight loss Occasional vomiting.

SPECIES

Feline

Abnormal PE/Chem/CBC/UA Results: Severe b12 deficiency, low normal folate Doughy abdomen with thickened SI.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**BREED**

DSH

Urinary System

The urinary bladder is subjectively overdistended 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.

SEX

Spayed Female

The right kidney is normal in size (3.55 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.

AGE

14.5 Years

The left kidney is normal in size (3.42 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**WEIGHT**

5.94 Pounds

The area of the right adrenal gland is examined without evident adrenal gland pathology.

The left adrenal gland is normal in size (0.40 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

INTERPRETED BYBeth Johnson, DVM
DACVIM**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.

IMAGING PERFORMED BY

Amy Mayhew, LVT

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. A focal mass of mixed echogenicity is noted in the deep left liver, primarily hyperechoic in echogenicity but containing multiple cysts of varying size. The mass measures 3.4 cm x 3.6 cm in size. Visible vasculature and biliary tree appear normal without distension or congestion.

HOSPITAL NAME

SVS Imaging MI

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

REFERRING VET

Dr. Totin

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

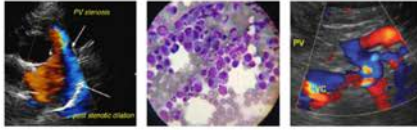
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The visible small intestine demonstrates areas of thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated. The lumen is empty with no evidence of obstruction or foreign material.

DATE

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

SPECIES***Pancreas***

Feline

The observed pancreas appears appropriately isoechoic to surrounding omental fat. The capsule is mildly irregular in shape. Parenchyma is mildly heterogenous and coarse. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

BREED

DSH

Free Abdomen

A small amount of free fluid is noted in these images.

SEX

Spayed Female

The 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**AGE**

14.5 Years

- **Inflammatory bowel disease (IBD) pattern** – Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. No aggressive lymphadenopathy, loss of layering, etc. is noted to make lymphoma more probable, but lymphoma cannot be definitively ruled out without tissue sampling.

WEIGHT

5.94 Pounds

- **Feline biliary cystadenoma** – In a senior cat, this liver lesion is most consistent with a benign biliary cystadenoma. Malignancy cannot be ruled out but is considered less likely given lack of clinical signs and/or laboratory changes.

INTERPRETED BYBeth Johnson, DVM
DACVIM

- **Reactive mesenteric lymph nodes** – infiltrative neoplastic disease cannot be ruled out but is considered less likely.
- The free fluid noted is of unknown cause and sampling is recommended.

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SECONDARY FINDINGS

- **Pancreatic age-related remodeling** – Mild irregularities are consistent with benign age-related change. Low-grade smoldering chronic pancreatitis cannot be ruled out and should be suspected in the face of appropriate clinical signs.

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- Subjectively mildly overdistended urinary bladder.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**REFERRING VET**

Dr. Totin

Given the appearance of free fluid, a recheck metabolic health screen with close attention paid to albumin level may be warranted.

Additionally, if not recently evaluated, a T4 should be considered.

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Additionally, sampling of the free abdominal fluid for fluid analysis and cytology is recommended.

Having said that, given the results of the malabsorption panel combined with the appearance of these images, infiltrative bowel disease is considered the most likely cause of this patient's clinical signs.

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Therefore, ideally biopsies of the GI tract, being sure to include ileum, if possible, are recommended to definitively diagnose and therefore manage the infiltrative bowel disease.

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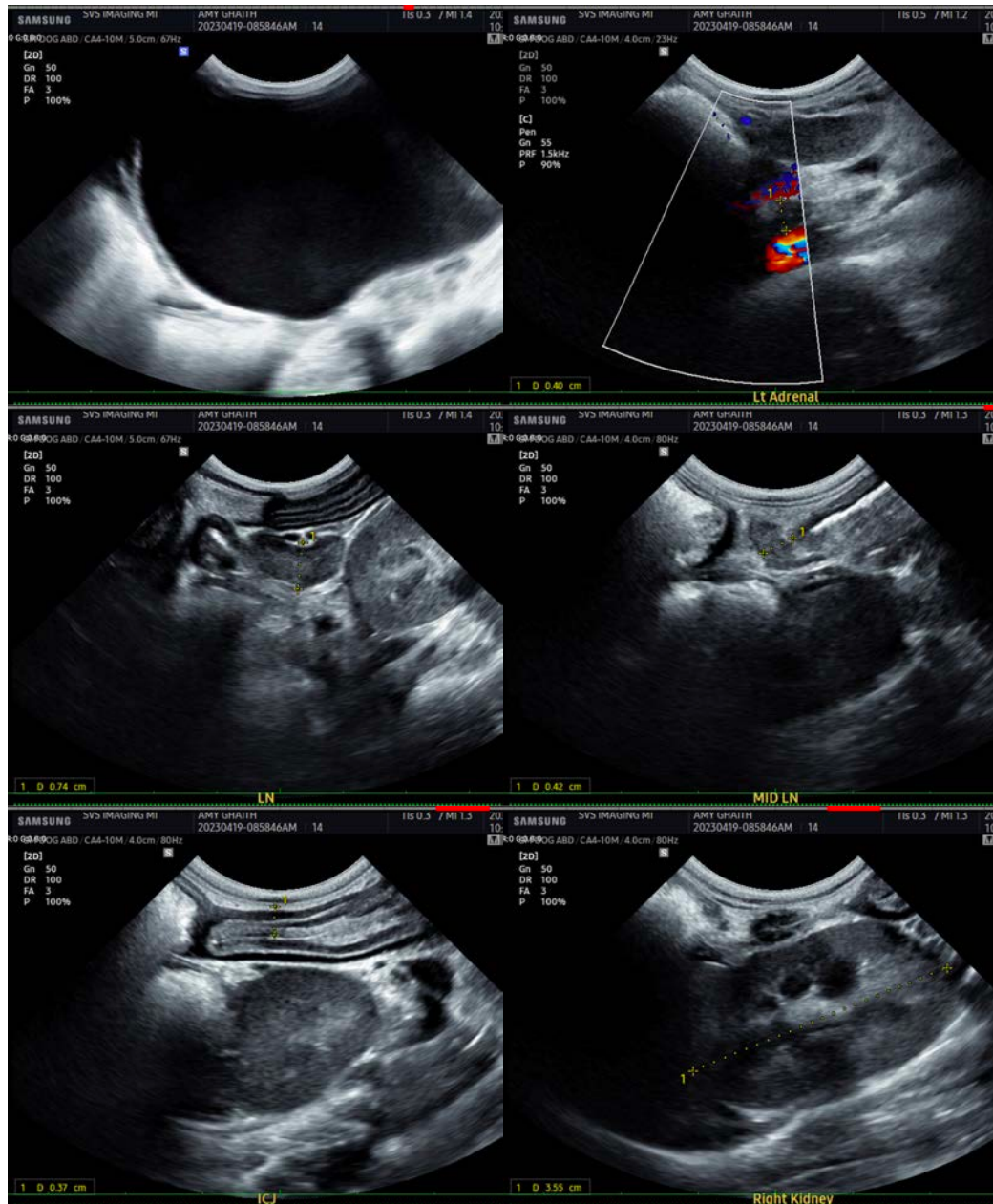
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If biopsies cannot be obtained, empirical therapies could include diet change, empirical deworming with a 5 day course of Panacur, cobalamin supplementation (unless cobalamin level is evaluated and supplementation is not warranted) and prednisolone (if not contraindicated based on patient contraindications, co-morbidities, etc.). Other supportive therapeutic considerations could include fiber supplementation, especially with large bowel diarrhea and/or a probiotic.



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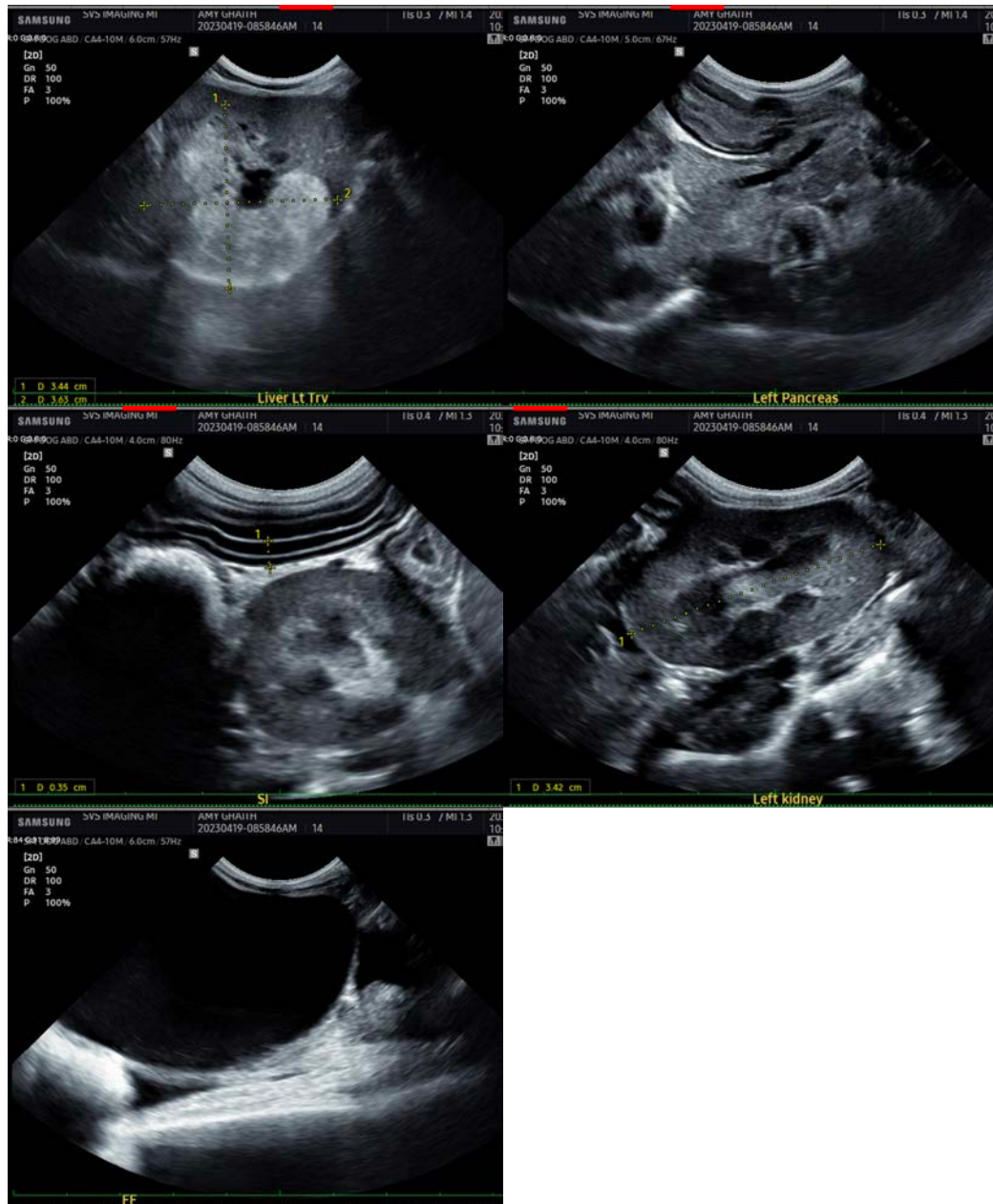
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM, DACVIM
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