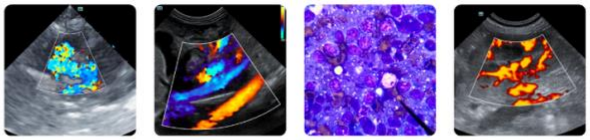


PATIENT

Biba Forman

SPECIES

Canine

BREED

Havanese

SEX

Spayed Female

AGE

12 Years 10 Months

WEIGHT

7.8 kg

INTERPRETED BY

Beth Johnson, DVM, DACVIM (SAIM)

IMAGING PERFORMED BY

Dr. Sookhoo

HOSPITAL NAME

Calusa VC

REFERRING VET

Dr. Sookhoo

INVOICE

35960

DATE

5/6/26

PRESENTING CLINICAL SIGNS

History of intermittent vomiting, diarrhea (GI signs). Hypothyroid. GI panel showed low Cobalamin - starting this today.

Abnormal PE/Chem/CBC/UA Results: Suspect pancreatitis on last bloodwork, ALT, ALKP in April 2026 normal.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is only mildly distended. Visible contents are anechoic. Urinary bladder wall is unable to be fully assessed for pathology without further distension. No visible masses or definitive cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface. In the face of urinary signs and/or suspected urinary bladder pathology, reassessment after complete filling is recommended.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia or infarcts observed. The left kidney measures 4.0 cm. The right kidney measures 4.8 cm. Pinpoint nonobstructive mineral densities are noted bilaterally.

Adrenal Glands

Left adrenal gland is normal in size (0.32 cm at cranial pole and 0.38 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (0.5 cm at cranial pole and 0.4 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Spleen

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.

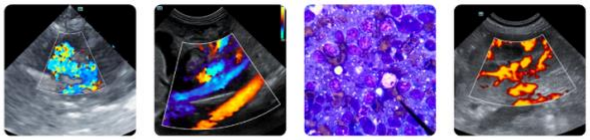
Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is markedly heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. One representative hypoechoic nodule measures approximately 2.3 cm x 2.9 cm in size. Visible vasculature and biliary tree appear normal without distension or congestion.

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 visible stomach wall mildly to moderately thick, measuring 0.97 cm thick in some places, with largely intact layering. The lumen of the stomach is mildly distended with very echogenic reverberation



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artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Hyperechoic mucosal fogging or speckling is noted. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction or foreign material.

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

Pancreas

The pancreas that is observed appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

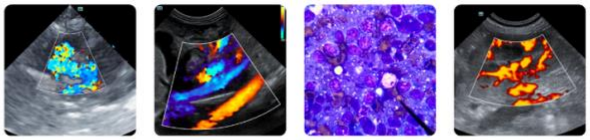
There is no visible free peritoneal effusion noted in these images.

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.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Mucosal speckling- Mucosal speckling is often present with inflammatory bowel disease (IBD). It is not specific for type or severity of disease. Mild speckling change can occur as a normal patient variant in the post-prandial state.
- The thick gastric wall could represent a benign process/gastritis secondary to irritation from dietary indiscretion or intolerance, bacterial, viral, or other infectious disease, parasitic or protozoal disease, toxin, other underlying metabolic disease, such as chronic low grade smoldering pancreatitis, other, although infiltrative disease, including both benign inflammatory infiltrative disease, as well as infiltrative neoplastic disease cannot be ruled out without tissue sampling.
- Mildly reactive mesenteric lymphadenopathy- infiltrative neoplastic disease cannot be ruled out but is considered less likely.
- The markedly heterogeneous liver could represent a benign process such as nodular hyperplasia, steroid or vascular hepatopathy, extramedullary hematopoiesis or chronic inflammatory disease, although infiltrative neoplasia, such as round cell neoplasia, metastatic neoplasia, other, can't be ruled out without tissue sampling.
- Mild 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



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abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

Secondary Findings

- Moderate age-related kidney changes with pinpoint nonobstructive mineral densities bilaterally.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A routine fecal/Giardia exam is recommended if not recently evaluated.

A fecal enteropathogen PCR panel to Texas A&M GI Laboratory could be considered for further evaluation of possible infectious disease. Contact lab for recommendations on how long to discontinue antibiotics (if indicated) prior to obtaining a stool sample for submission.

A baseline cortisol is recommended. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism.

Ultimately, especially given patients reported hypocobalaminemia, biopsies of the GI tract, being sure to include the stomach, duodenum, and ileum, if possible, may be necessary for a definitive diagnosis and to further guide medical management.

Prior to biopsies, less invasive tissue sampling could be considered beginning with fine needle aspirates of the liver, if patient's coagulation status is appropriate, although the liver and bowel may not be the same underlying pathologic process.

In the meantime:

Supportive/symptomatic medical management of clinical signs is recommended, including anti-emetics, gastroprotectants (+/- sucralfate, especially with any history of hematemesis), an appetite stimulant and fluid therapy if indicated, etc.

Additionally, empirical deworming with a 5-day course of Panacur is recommended.

A full course of empirical Helicobacter triple therapy could be considered.

A probiotic, such a visbiome or proviable, may be helpful.

Finally, if tolerated, a transition in diet could be considered, based on trial-and-error response with some options to consider including a gastrointestinal biome diet vs a hydrolyzed protein diet (sometimes several trials with different brands are necessary) vs an easy to digest, bland or low-fat diet vs other.

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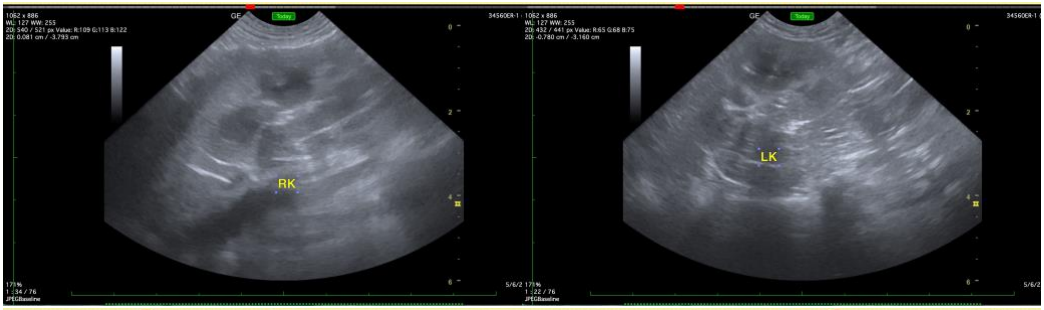
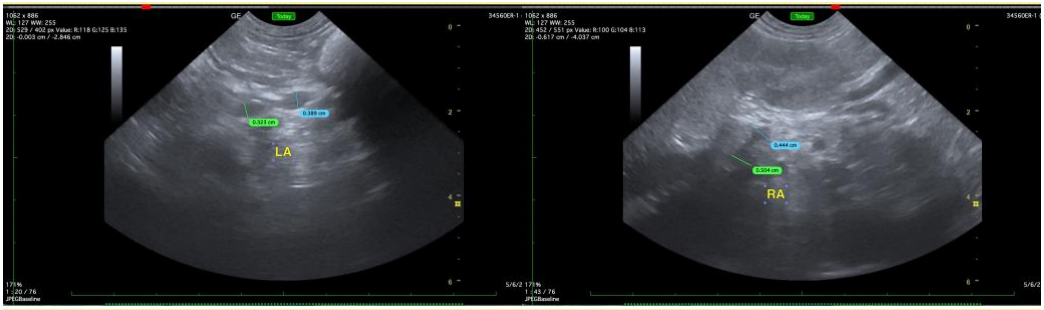
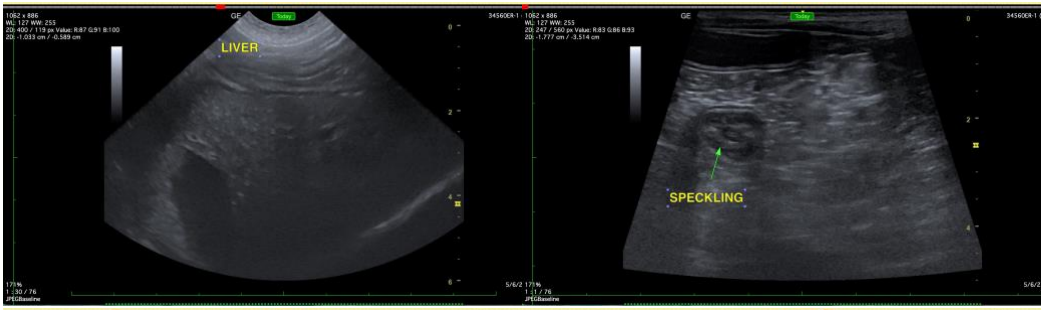
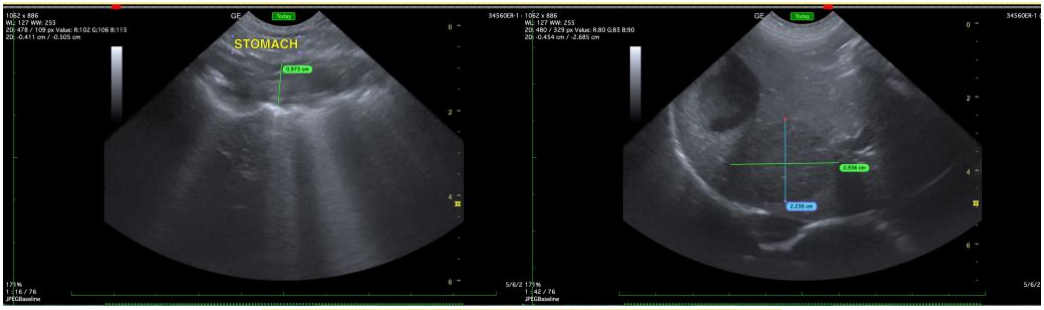
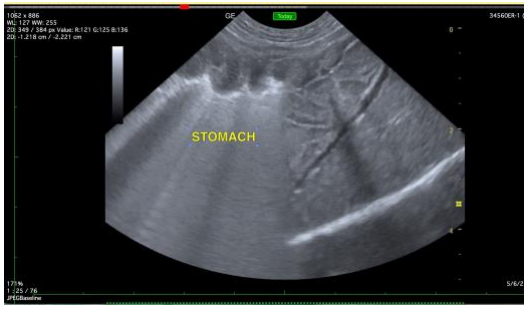


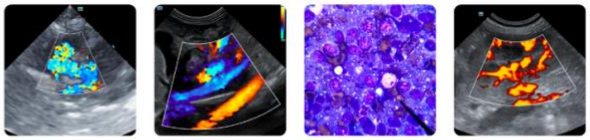








The information and recommendations provided are based on the images presented by the referring



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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

info@sonopath.com