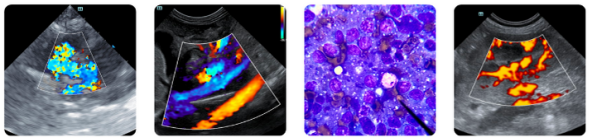


PATIENT

Ruger Nason

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

MN

AGE

10 years

WEIGHT

9.54 lbs

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Dr. Andrew Nason

HOSPITAL NAME

Caravan Vet

REFERRING VET

Dr. Andrew Nason

INVOICE

11155

DATE

1/19/2026

PRESENTING CLINICAL SIGNS

Ruger has been acutely vomiting for the last 1-2 weeks. He has maintained a normal appetite and energy level. He's also been coughing more. He has Stage B2 mitral valve disease and is on pimobendan. He's on ursodiol and denamarin for liver/gallbladder support, apoquel for allergies, prozac for anxiety, and vitamin B12 for previous hypocobalminemia.

Abnormal PE/Chem/CBC/UA Results: CBC, Chem, T4, UA, UPC pending Blood Pressure: 210 systolic.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is adequately distended with anechoic contents as well as a moderate amount of suspended echogenic, non-shadowing debris. Additionally, one shadowing cystolith, measuring 0.47 cm in diameter is noted settle along the dependent wall. No masses are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

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

The right kidney is normal is size (4.02 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. Punctate non-obstructive mineral desnities are noted in the right kidney. There is no evidence of pyelectasia or infarcts observed.

The left kidney is normal is size (3.52 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 (0.65 cm at cranial pole and 0.64 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

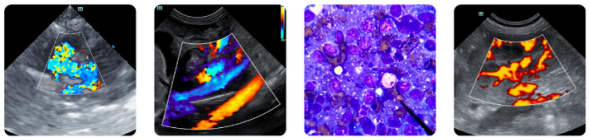
The left adrenal gland is normal in size (0.55 cm at cranial pole and 0.57 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

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, except for an approximately 0.6 cm x 0.9 cm in size discrete, homogenous, hyperechoic nodule in the mid to caudal liver. Visible vasculature and biliary tree appear normal without distension or congestion.



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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 is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. 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 area of the pancreas contains irregular hyperechoic pancreatic remodeling.

Free Abdomen

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

There is no apparent pathologic lymphadenopathy noted in these images.

PRIMARY FINDINGS

- Hyperechoic pancreas – This finding is suggestive of pancreatic fibrosis, possibly secondary to chronic pancreatitis. A TLI is recommended to rule out exocrine pancreatic insufficiency (EPI), especially if clinical signs (weight loss, diarrhea, etc.) are present.
- Liver nodule – Differentials for a discrete hyperechoic liver nodule include primarily benign changes such as nodular hyperplasia, fibrosis of an old hematoma, granuloma, myelolipomas, etc.; however, while considered less likely, primary hepatic neoplasia, infiltrative round cell neoplasia and metastatic disease can mimic benign lesions and cannot be definitively ruled out.
- Canine 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.

SECONDARY FINDINGS

- Punctate non-obstructive mineral densities in the right kidney.
- A mild to moderate of echogenic urinary bladder debris, as well as at least one visible cystolith.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given patient's hyperechoic pancreas, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

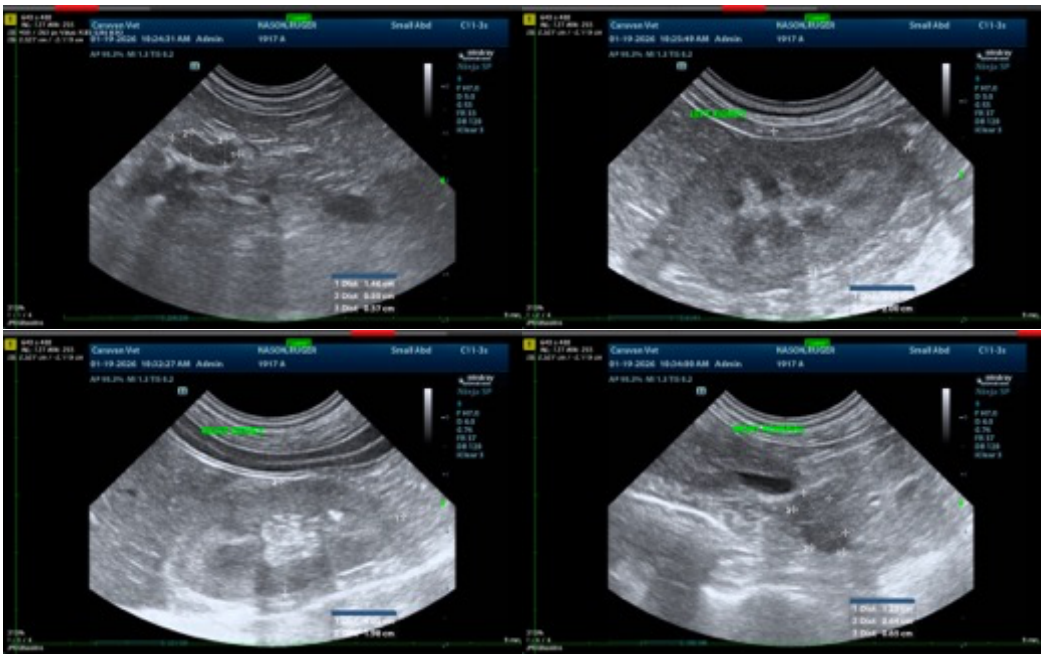
A baseline cortisol is recommended. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism.

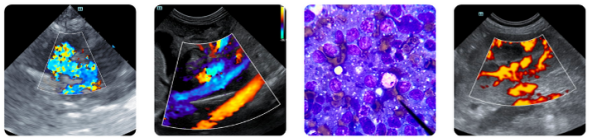
In the meantime, as is reportedly already pending, a full general metabolic health screen is recommended to also include CBC, chemistry panel, electrolytes, and urinalysis.

While continuing workup, 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 as is a full course of empirical Helicobacter triple therapy.

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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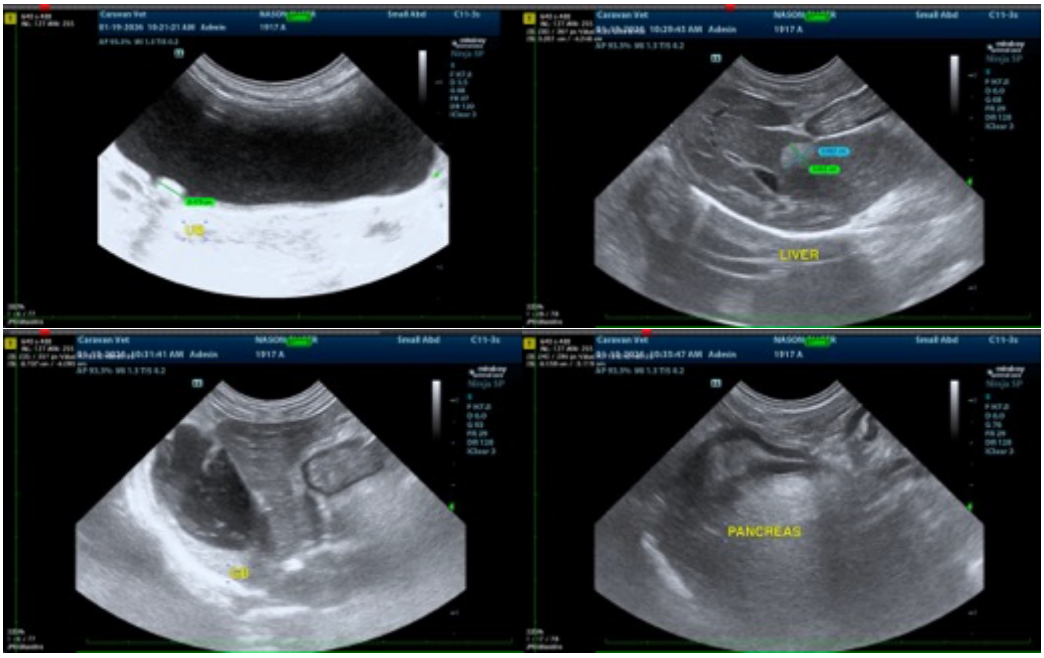

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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