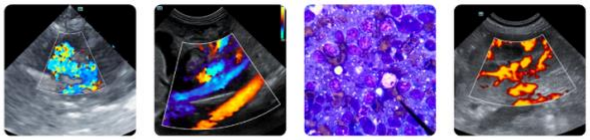


PATIENT

Zoe George

SPECIES

Canine

BREED

Pug

SEX

Spayed Female

AGE

10 Years

WEIGHT

23.8 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Quinn Robinson RVT

HOSPITAL NAME

Hess Ridge Animal Hospital

REFERRING VET

Whitney Vaccari DVM

INVOICE

15615

DATE

05/01/26

PRESENTING CLINICAL SIGNS

Decreased appetite and lethargy of ~48 hour duration. 1 episode of vomiting. Significantly elevated liver values on labwork - see below

CBC: Retic Hgb 23.5 (23.8-28.3), WBC 23.8k (5.8-16.2k), Neuts 20,111 (3,004-9,741), Monos 1,357 (145-736), Pets 447k (120-412k) Chem21: Na 161 (142-152), Cl 124 (108-119), Alb 2.5 (2.7-3.9), Glob 4.4 (2.4-4.0), A/G Ratio 0.6 (0.7-1.5), ALT 584 (18-121), AST 92 (16- 55), ALP 2,341 (5-160), T. bili 1.0 (0-0.3), Chol 495 (131-345) Spec cPL: 37 (0-200)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2.0 cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The left kidney has a normal shape and size (4.26 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Renal vasculature is normal. There is a poorly defined hyperechoic band of tissue between the cortex and medulla, most consistent with a medullary band.

The right kidney has a normal shape and size (4.55 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Renal vasculature is normal. There is a poorly defined hyperechoic band of tissue between the cortex and medulla, most consistent with a medullary band.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.36 cm at the cranial pole and 0.42 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.

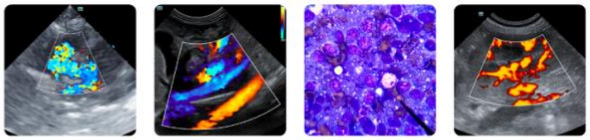
The right adrenal gland is normal in size measuring 0.47 cm at the cranial pole and 0.22 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and irregular in shape. The blood flow through the hilus and splenic parenchyma appears normal. The spleen measured 1.58 cm width. There is a small isoechoic “bleb” of tissue measuring 0.72 cm x 0.4 cm, possibly consistent with a small accessory spleen or similar.

Liver

The liver is subjectively normal in size with smooth peripheral margins. The parenchyma is subjectively mildly hyperechoic and homogenous in echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.



PATIENT

Zoe George

SPECIES

Canine

BREED

Pug

SEX

Spayed Female

AGE

10 Years

WEIGHT

23.8 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Quinn Robinson RVT

HOSPITAL NAME

Hess Ridge Animal Hospital

REFERRING VET

Whitney Vaccari DVM

INVOICE

15615

DATE

05/01/26

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7 cm 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 relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis: mucosa layer ratio. The duodenum measured as normal (0.50 cm in wall thickness) and the jejunum measured as normal (0.28 cm) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is visible/mildly mottled in the right limb compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Hyperechoic medullary band visualized associated with both kidneys – A thick, hyperechoic band of tissue is visualized at the corticomedullary junction. This is most often associated with chronic renal disease and fibrosis.
- Isoechoic ‘bleb’ of tissue associated with the spleen- findings are most consistent with an accessory spleen. Recommend continued monitoring for further progression.
- Pancreatic changes consistent with mild focal chronic pancreatic remodeling, +/- mild inflammation.
- Moderate gallbladder debris- The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Changes observed on today's scan are relatively mild. No focal lesions are associated with the liver,

PATIENT

Zoe George

SPECIES

Canine

BREED

Pug

SEX

Spayed Female

AGE

10 Years

WEIGHT

23.8 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Quinn Robinson RVT

HOSPITAL NAME

Hess Ridge Animal Hospital

REFERRING VET

Whitney Vaccari DVM

INVOICE

15615

DATE

05/01/26

and there's no evidence of significant gallbladder or biliary inflammation noted. Subjectively, the parenchyma is slightly hyperechoic, possibly consistent with a vacuolar hepatopathy or other. Differentials such as infectious, toxic, or inflammatory change may not produce dramatic lesions. Consider the following for further evaluation.

- Recommend pre- and postprandial bile acids to assess liver function.
- Recommend screening for leptospirosis.
- Evaluate medication and exposure history for any potential hepatotoxins.
- Consider a fine needle aspirate of the liver for cytologic evaluation (provided coagulation parameters are normal)

While awaiting additional test results, consider treatment for acute liver injury with Ursodiol, Denamarin, antibiotics, and close continued monitoring. If symptoms are persistent or progressive, ultimately a biopsy of the liver may be necessary for further evaluation.

There are mild changes visually associated with both kidneys. The significance of this is uncertain. Correlate with urine concentrating ability, renal values, etc. Additionally, consider a urine protein creatinine ratio, looking for any evidence of significant proteinuria contributing to low albumin levels reported.

No significant gastrointestinal lesions are visualized. There is a small area of the right cranial pancreas, which is slightly prominent. Correlate with a PLI level and consider treatment for acute gastroenteritis/pancreatitis. If symptoms are persistent and protein loss is suspected to be from gastrointestinal sources, you could consider a GI panel to Texas A&M for a qualitative PLI, TLI, cobalamin and folate. If these are suggestive of small intestinal disease, biopsies of the GI tract may be warranted.

If symptoms are persistent/progressive despite symptomatic therapy, consider repeat imaging in the future, looking for the progression of today's lesions or the development of new lesions.

PATIENT

Zoe George

SPECIES

Canine

BREED

Pug

SEX

Spayed Female

AGE

10 Years

WEIGHT

23.8 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Quinn Robinson RVT

HOSPITAL NAME

Hess Ridge Animal Hospital

REFERRING VET

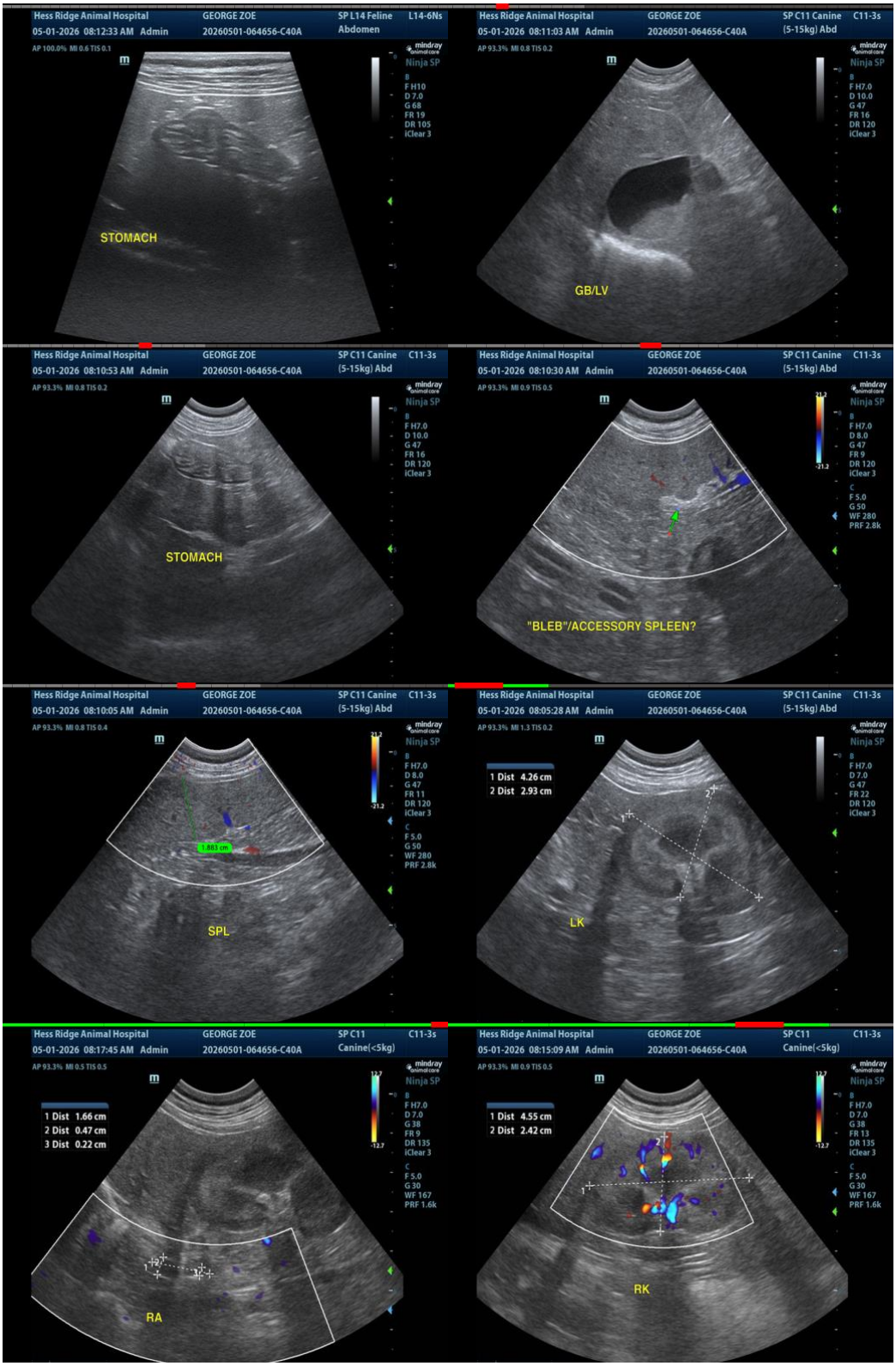
Whitney Vaccari DVM

INVOICE

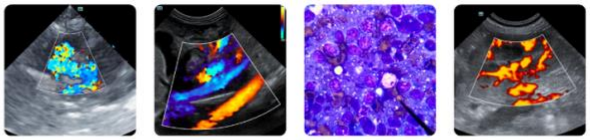
15615

DATE

05/01/26



SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™



Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath.com info@sonopath.com 1.800.838.4268

PATIENT

Zoe George

SPECIES

Canine

BREED

Pug

SEX

Spayed Female

AGE

10 Years

WEIGHT

23.8 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Quinn Robinson RVT

HOSPITAL NAME

Hess Ridge Animal Hospital

REFERRING VET

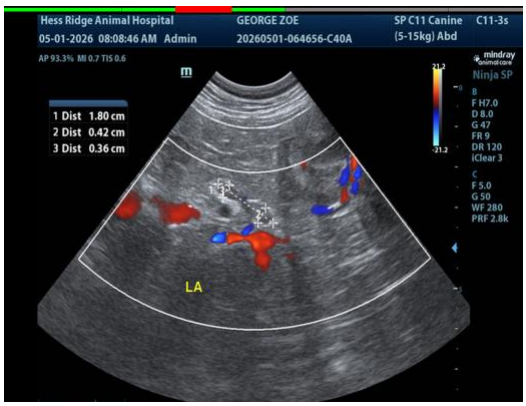
Whitney Vaccari DVM

INVOICE

15615

DATE

05/01/26



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)

info@sonopath.com