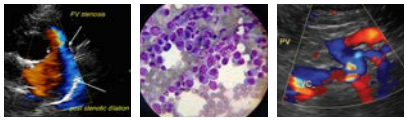
IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telecytology

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DATE

6/27/23

PATIENT

Titus Miller

SPECIES

Canine

BREED

Old English Bulldog

SEX

Neutered Male

AGE

6/22/15

WEIGHT

60 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

HOSPITAL NAME

Honeygo AH

REFERRING VET

Dr. Weichert

INVOICE

43464

PRESENTING CLINICAL SIGNS

Complaint- ADR, vomiting and diarrhea. History- weight loss and elevated lymphocytes in 2021. PE- weight loss, firm tissue in cranial abdomen.

Current Medications: None listed.
Radiographs: Soft tissue opacity in cranial abdomen that is displacing the SI caudally and stomach cranially.
Date of Previous IntraPet Ultrasound: 7/29/21. See attached.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Declined.
Imaging Performed By: Stephanie Warga RDCS, RVT.

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

The right kidney is normal in size (7.95 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 (8.11 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 (2.2 cm long x 0.74 cm at the cranial pole and 0.85 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 (2.78 cm long x 0.58 cm at the cranial pole and 0.67 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

Spleen is subjectively large in size with a swollen and scalloped/undulating capsular contour. Multifocal coalescing nodules are noted throughout the parenchyma. The largest most discrete nodule/mass measures 3.5 cm x 4.2 cm. Splenic vasculature appears normal. Enhanced hyperechoic surrounding fat is noted.

Liver

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately overdistended with organized, aggregated and centralized non-gravity dependent sludge. Striations of sludge separated by anechoic areas are noted extending from the lumen to the luminal wall. The wall is mildly thick, irregular and hyperechoic. There is no evidence of CBD dilation. There is enhanced fat and trace free fluid surrounding the gallbladder.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is 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 (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 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 enhanced hyperechoic mesenteric fat in the cranial abdomen, potentially related to pancreatic inflammation versus gallbladder.

Free Abdomen

There is a trace amount of free fluid adjacent to the gallbladder.

In the cranial abdomen near the pancreas, there is a 2.5 cm in diameter, mildly heterogeneous, primarily hypoechoic lymph node.

There is no evidence of heart base or pericardial pathology noted in these images at this time. If cardiac function evaluation is desired a full echocardiogram is recommended.

ULTRASONOGRAPHIC FINDINGS

- Gallbladder mucocele with free fluid and enhanced fat surrounding it suggestive of focal inflammation.
- 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. Infiltrative neoplasia cannot be ruled out but is considered less likely.
- Cranial abdominal lymphadenopathy – This could be reactive lymphadenopathy as well as infiltrative neoplasia and cannot be differentiated without tissue sampling. The rounded shape is a criterion of malignancy but not definitive.
- Honeycomb Spleen – This finding is strongly suggestive of infiltrative disease such as round cell neoplasia. Benign disease cannot be ruled out but is considered less likely.

- Hyperechoic hepatomegaly - This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible but considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

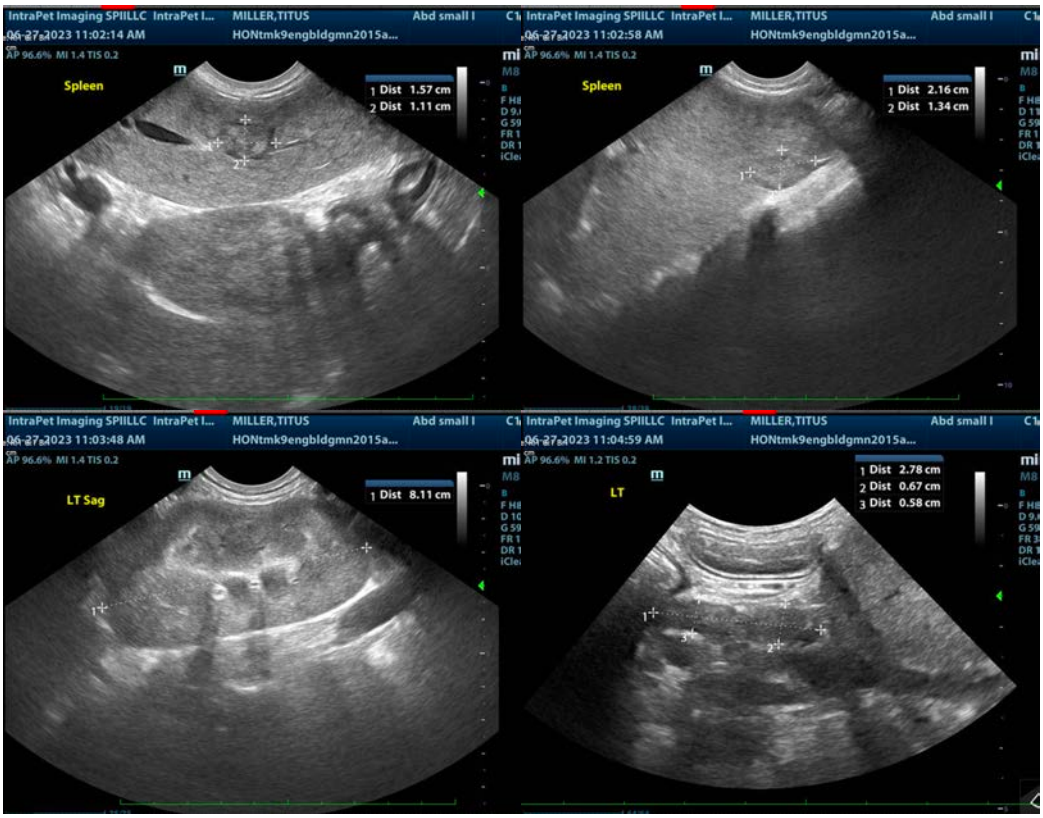
For conservative medical workup and treatment, recommendations could include:

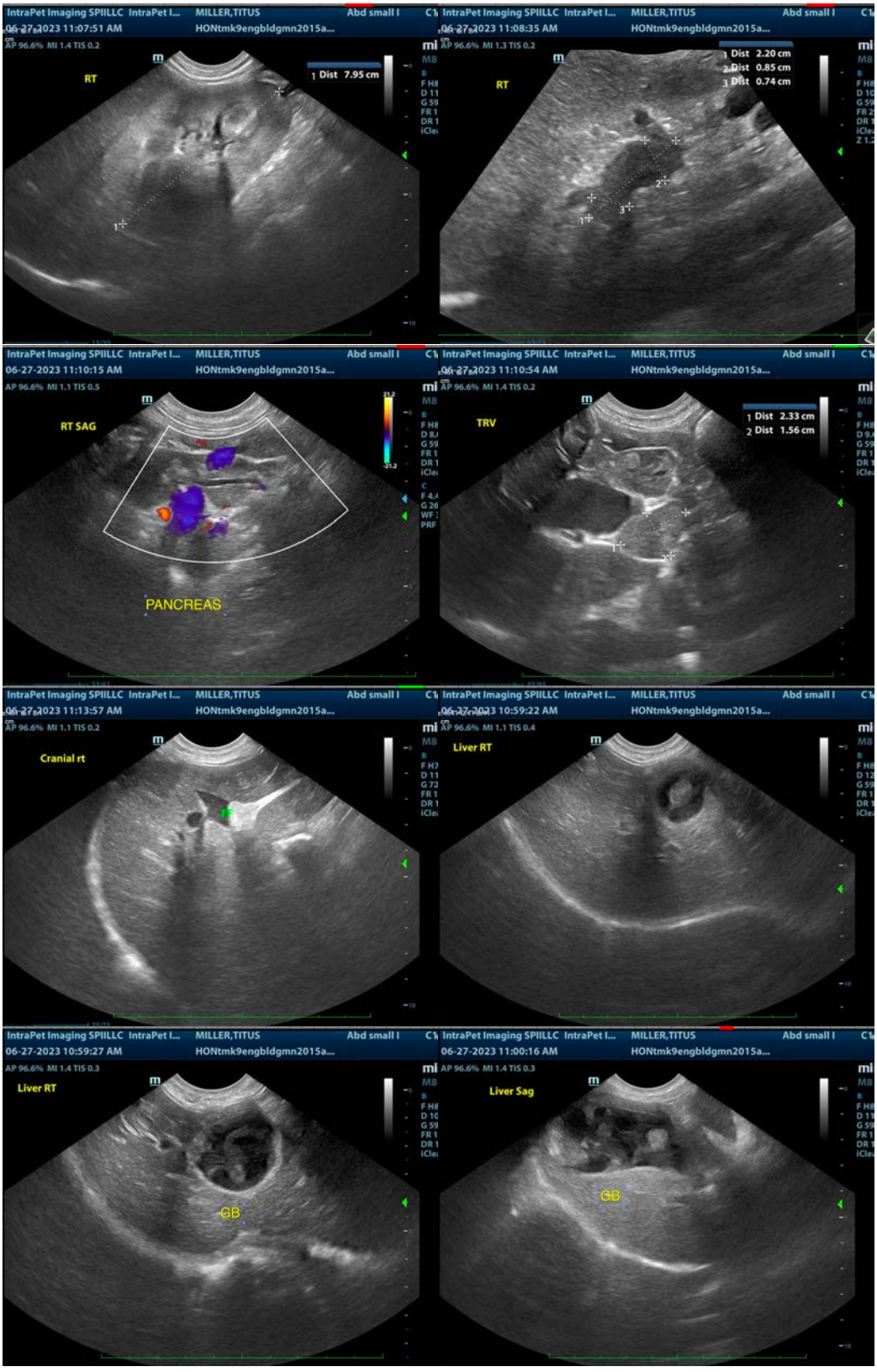
A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function, given this patient's chronic and intermittent gastrointestinal signs.

Additionally, a fine needle aspirate of the spleen +/- the enlarged cranial abdominal lymph node (if it can be safely reached and if patient's coagulation status is appropriate) could be considered to look for evidence of infiltrative neoplasia such as round cell neoplasia prior to making additional plans.

In the meantime, supportive/symptomatic medical management of possible smoldering pancreatitis as well as the gallbladder mucocele is recommended in the form of antiemetics, gastroprotectants, appetite stimulants, or other nutritional support as needed, pain management, broad-spectrum antibiotics, fluid therapy, hepatic nutraceuticals, etc. while awaiting the above recommended results.

Ultimately, however, an exploratory laparotomy is recommended for cholecystectomy. Therefore, an alternative approach could include proceeding to surgery immediately upon patient stabilization for possibly splenectomy, cholecystectomy, and biopsy of the enlarged lymph node, etc.

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RT
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2 Dist 0.85 cm
3 Dist 0.74 cm
RT SAG
PANCREAS
TRV
1 Dist 2.33 cm
2 Dist 1.56 cm
Cranial rt
Liver RT
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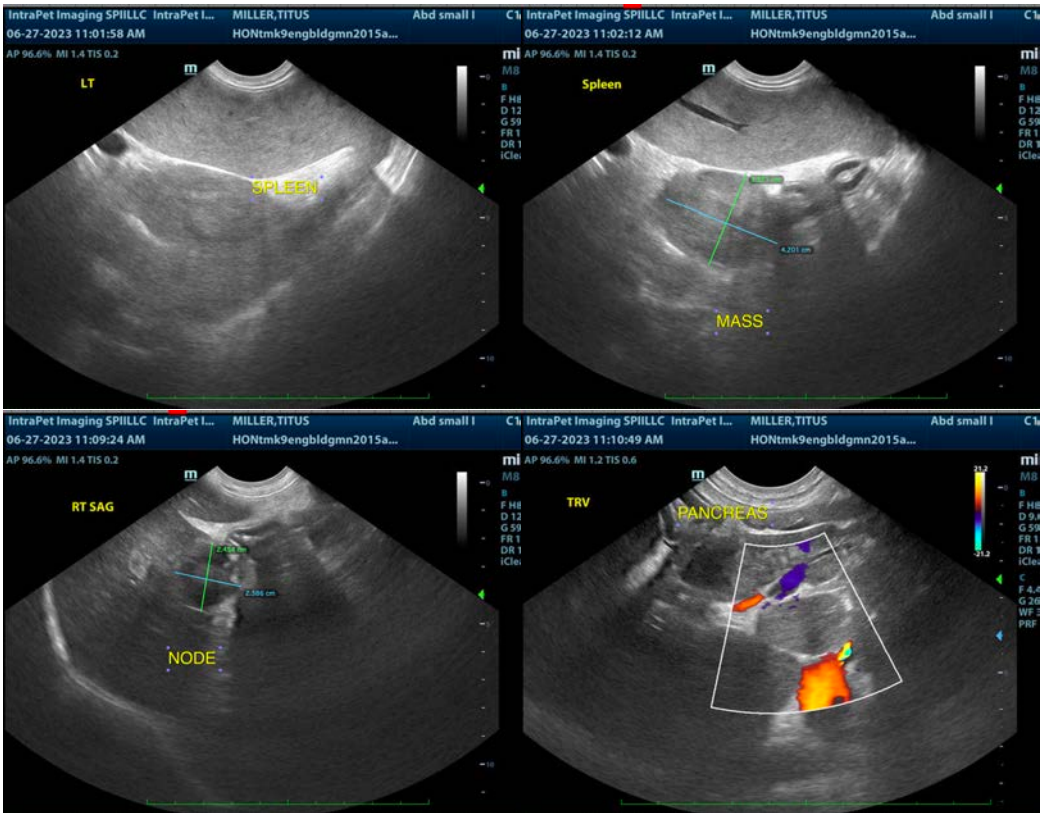

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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