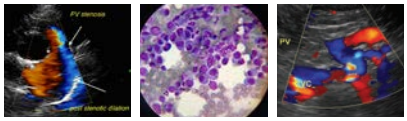
IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™

1-800-838-4268 info@sonopath.com SonoPath.com

DATE

1/12/23

PATIENT

Rosie Wells

SPECIES

Canine

BREED

Boston Terrier

SEX

Spayed Female

AGE

1/24/14

WEIGHT

18.4 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

HOSPITAL NAME

Essex Middle River VC

REFERRING VET

Dr. Hicks

INVOICE

44112

PRESENTING CLINICAL SIGNS

Seen at Urgent Vet Care 12/5 and 12/6/2022 for 2 wk hx of vomiting; PE found prominent Submandib. LN's, painful cranial abdomen; 2/6 heart murmur; firm, ~1 cm mass lower caudal molar area, attached to gum tissue, firm, light pink; treated with Cerenia/Tramadol, SQ fluids;
Seen at our hosp 12/27/22- Reck, doing fine then again 12/30/22 for V blood; Rx'ed Gabapentin, Sucralfate. 1/9/23- SQ fluids, Cerenia inj.helped for the day but next day still ADR. 1/10/23- Still vomiting, not wanting to eat, weight loss; Rx Ondansetron/Metronidazole; aspirated submandib. LN's for cytology

Current Medications: Metronidazole 250mg, 1/2 BID, Ondansetron 8mg, 1-1/2 BID, Sucralfate
Lab Results: Alk phos 383
Radiographs: Lack of detail cranial abdomen near pancreas, hepatomegaly
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: STAT requested.
Imaging Performed By: Rachel Brilhart, RDMS.

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.

The right kidney is normal in size (5.24 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 (5.65 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 (1.96 cm long x 0.93 cm at the cranial pole and 0.66 cm at the caudal pole), shape and contour. A hyperechoic nodule is noted in the cranial pole. Nodule does not disrupt normal shape and/or architecture. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (2.53 cm long x 0.74 cm at the cranial pole and 0.82 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 subtly scalloped or undulating capsular contour. Parenchyma is normal in echogenicity with a mildly coarse/heterogenous echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as mild suspended and gravity dependent echogenic debris. One focal echogenic area measuring 0.87 cm across could represent adhered mucus density. However, a nodule cannot be definitively ruled out. 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 body/fundus of the stomach is diffusely markedly thick, measuring 1.5-2.0 cm in thickness with heterogeneous, primarily hypoechoic wall and complete loss of mural detail. The mass-like change is surrounded by enhanced hyperechoic mesenteric fat. 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 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.

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 no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

A prominent, hypoechoic gastric lymph node is noted, measuring 0.80 cm in diameter.

PRIMIARY FINDINGS

- **Gastric Mass** – Most concerning for infiltrative neoplasia, with round cell neoplasia such as lymphoma, adenocarcinoma, leiomyosarcoma, etc. all being differentials. A benign inflammatory or infectious process is possible but considered much less likely.

- **Gastric lymphadenopathy** – Both reactive lymphadenopathy as well as infiltrative neoplasia are differentials.

- **Heterogenous Liver –** These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.

- **Mild gallbladder debris with possible benign polyp or nodule suspected -** 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.

- **Scalloped spleen –** can be associated with benign or malignant infiltrative disease. Common causes include a reactive spleen secondary to immune stimulus or early infiltrative round cell neoplasia such as lymphoma or mast cell tumor.

SECONDARY FINDINGS

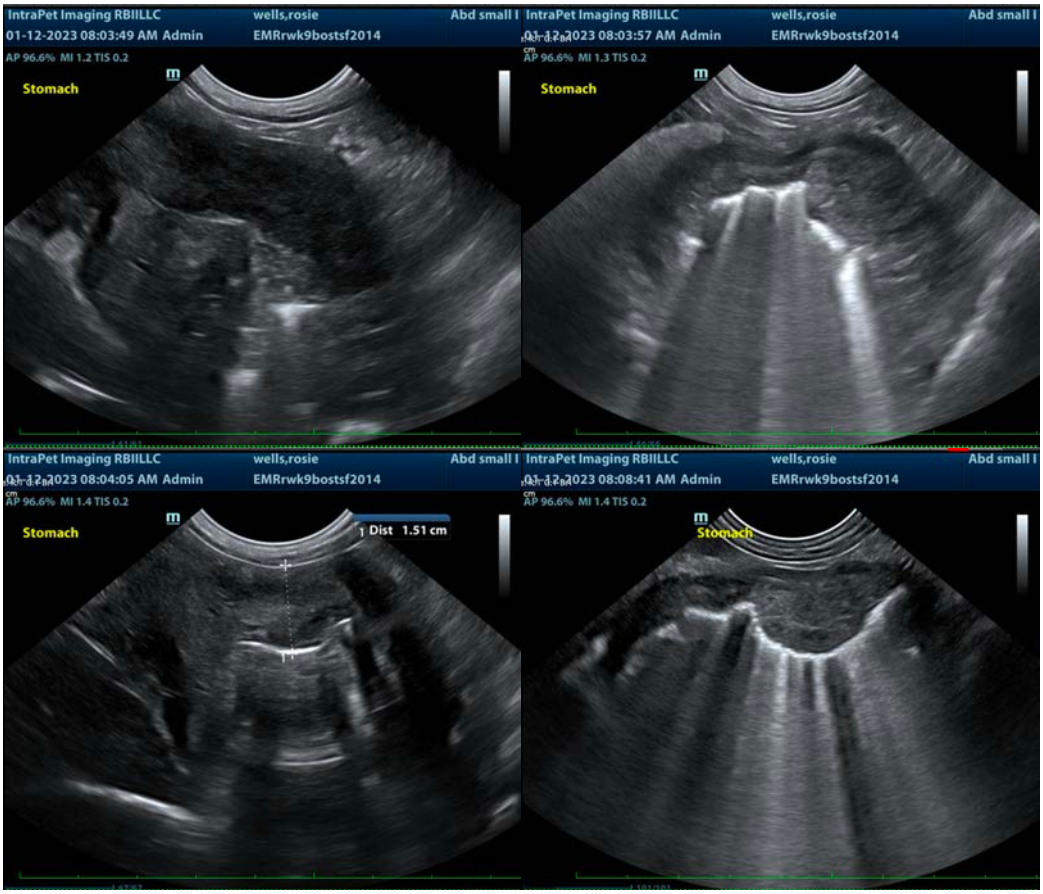
- **Hyperechoic adrenal nodule (cranial pole right adrenal gland) –** Differentials include primary adrenal cortical adenoma or adenocarcinoma, pheochromocytoma, myelolipoma, adrenal hyperplasia secondary to pituitary disease or metastatic disease. Ultrasound alone cannot differentiate between functional and non-functional nodules and/or between benign and malignant disease. Small nodules without other evidence of abdominal disease (to suggest metastatic disease) and/or clinical signs (to suggest adrenal disease) are most often incidental and should be monitored.

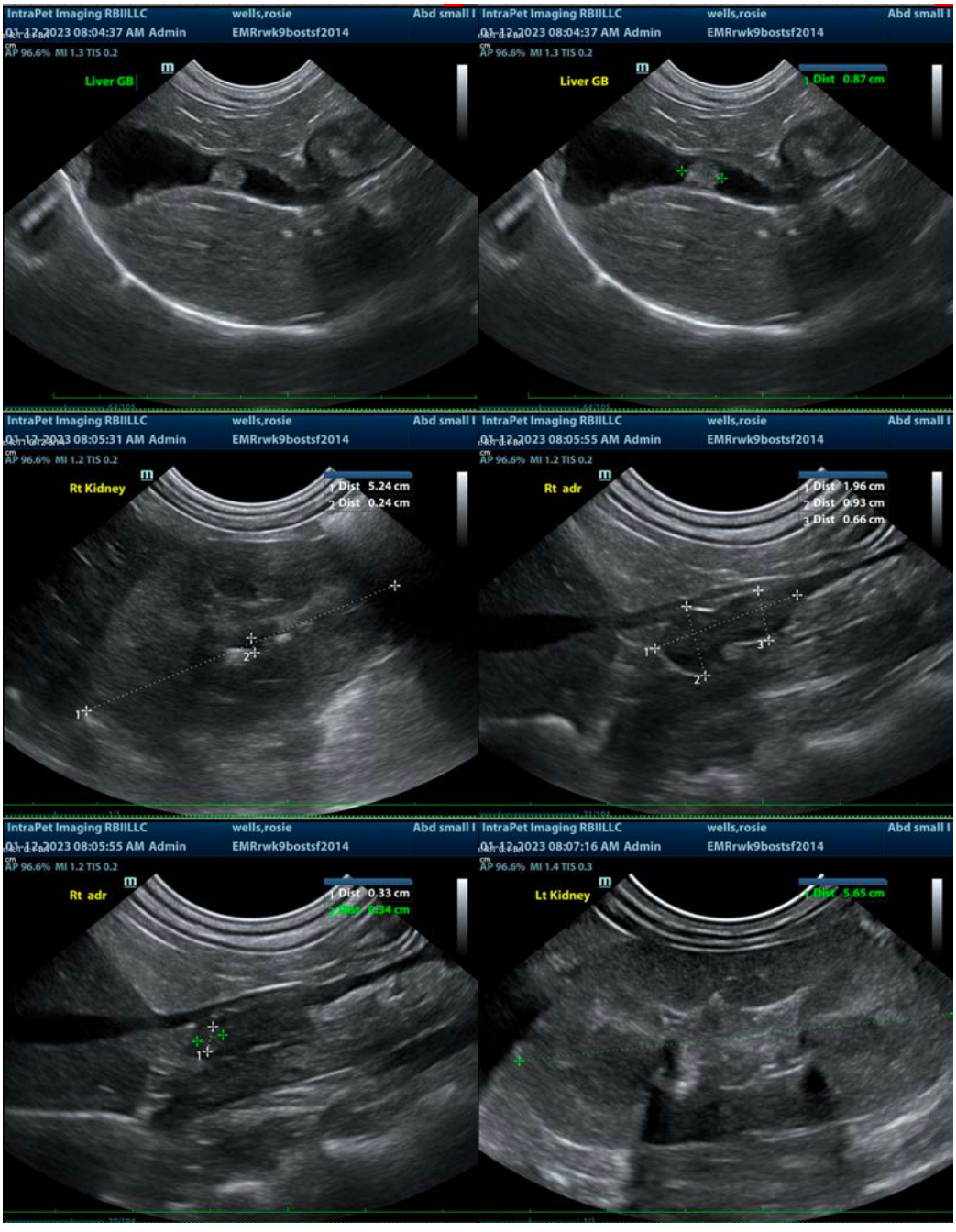
- **Pancreatic age-related remodeling –** Mild irregularities are consistent with benign age-related change. Low-grade smoldering chronic pancreatitis cannot be ruled out and should be suspected in the face of appropriate clinical signs.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

A fine needle aspirate of the gastric mass is recommended if patient's coagulation status is appropriate. Alternatively, if a cytologic diagnosis cannot be obtained, gastroscopy for biopsies could be considered. An exploratory laparotomy for biopsies is another option. However, full resection of the visibly gross disease is considered unlikely.

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Liver GB
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Rt Kidney
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2 Dist 0.24 cm
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2 Dist 0.93 cm
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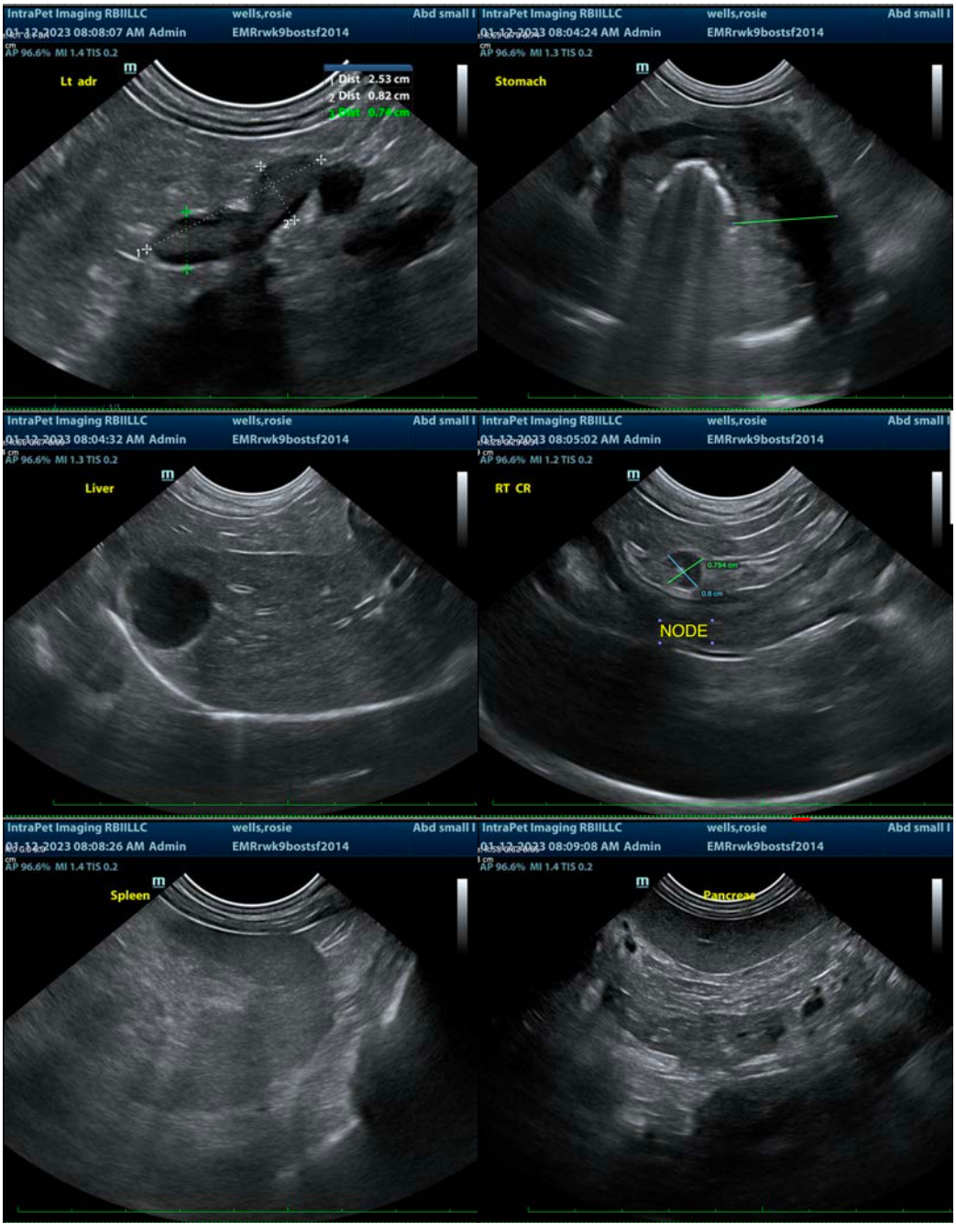
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Abd small I
EMRrwk9bostsf2014
AP 96.6% MI 1.4 TIS 0.2
Lt adr
Dist 2.53 cm
Dist 0.82 cm
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NODE
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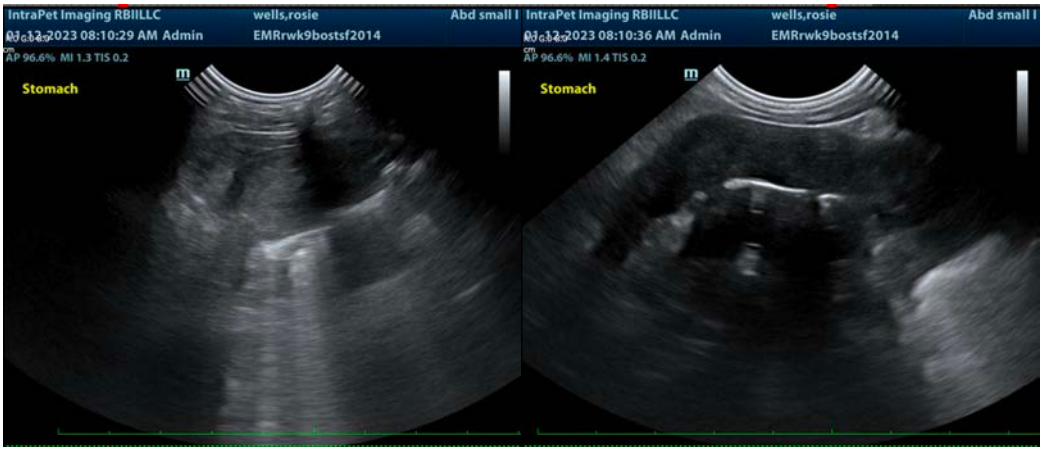
Pancreas



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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