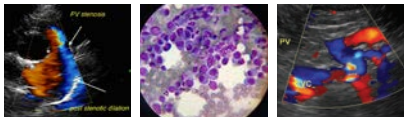
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
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DATE

1/5/23

PATIENT

Daisy Gren

SPECIES

Canine

BREED

Goldendoodle

SEX

Spayed Female

AGE

2/20/08

WEIGHT

45.5 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

HOSPITAL NAME

Healing Paws VWC

REFERRING VET

Dr. Levitsky

INVOICE

43997

PRESENTING CLINICAL SIGNS

Long hx of allergies. Hx of IBD but appeared to be under control. Several month hx of issues with wt loss and muscle weakness. Going to rehab for water treadmill. In November issues with urinating in the house. U/A revealed rods >100, WBCs 4-10. Tx with simplicef 200 mg SID but no follow up u/a. Biannual BW on 12/9 still issues with inappropriate urination and U/A revealed WBC 11-20 and rods >100. Tx again with simplicef. Recheck U/A on 12/26 4 days after end of abx revealed WBC 4-10 and rods>100 with trace protein. Dog is also down about 3 lbs in last month but appetite has been on/off.

Current Medications: Herbal supplements for joints and to try and help appetite. Adequan weekly for loading dose, Vit B12 for hx of IBD
Lab Results: 5/22 was all wnl.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Torbugesic IV.
Stat Report: Not requested.
Imaging Performed By: Stephanie Warga RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with primarily anechoic contents and occasional echogenic non-shadowing debris. Apical urinary bladder wall is diffusely thick (0.91 cm). Mucosa is hyperechoic and irregular. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface.

The right kidney is normal in size (4.89 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 (5.79 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 (1.95 cm long x 0.46 cm at the cranial pole and 0.44 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 (2.99 cm long x 0.73 cm at the cranial pole and 0.60 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. 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, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed. The most notable hypoechoic nodules are a 1.5 cm in diameter nodule in the caudal left liver as well as a 2.2 cm x 2.5 cm hypoechoic nodule/mass in the caudal mid liver.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic reverberation 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 (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 pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. 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.

There is no apparent lymphadenopathy noted in these images.

Caudal to the stomach, in the area of the pancreas, there is an approximately 1.0 cm x 2.0 cm cystic structure that may represent a cystic lymph node versus a pancreatic cyst. The two are difficult to differentiate in these images, partially due to a large amount of gas in the stomach obscuring some view.

PRIMARY FINDINGS

- **Heterogenous Liver –** These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease. However, given this patient's concurrent weight loss and possible cranial abdominal lymphadenopathy, infiltrative round cell or metastatic neoplasia should also be considered and can't be differentiate without tissue sampling.

- The cystic structure in the cranial abdomen could represent an incidental benign pancreatic cyst. However, cystic lymph nodes cannot be ruled out, in which case both reactive lymph nodes as well as infiltrative neoplastic lymph nodes should be considered and can't be differentiated without tissue sampling.

SECONDARY FINDINGS

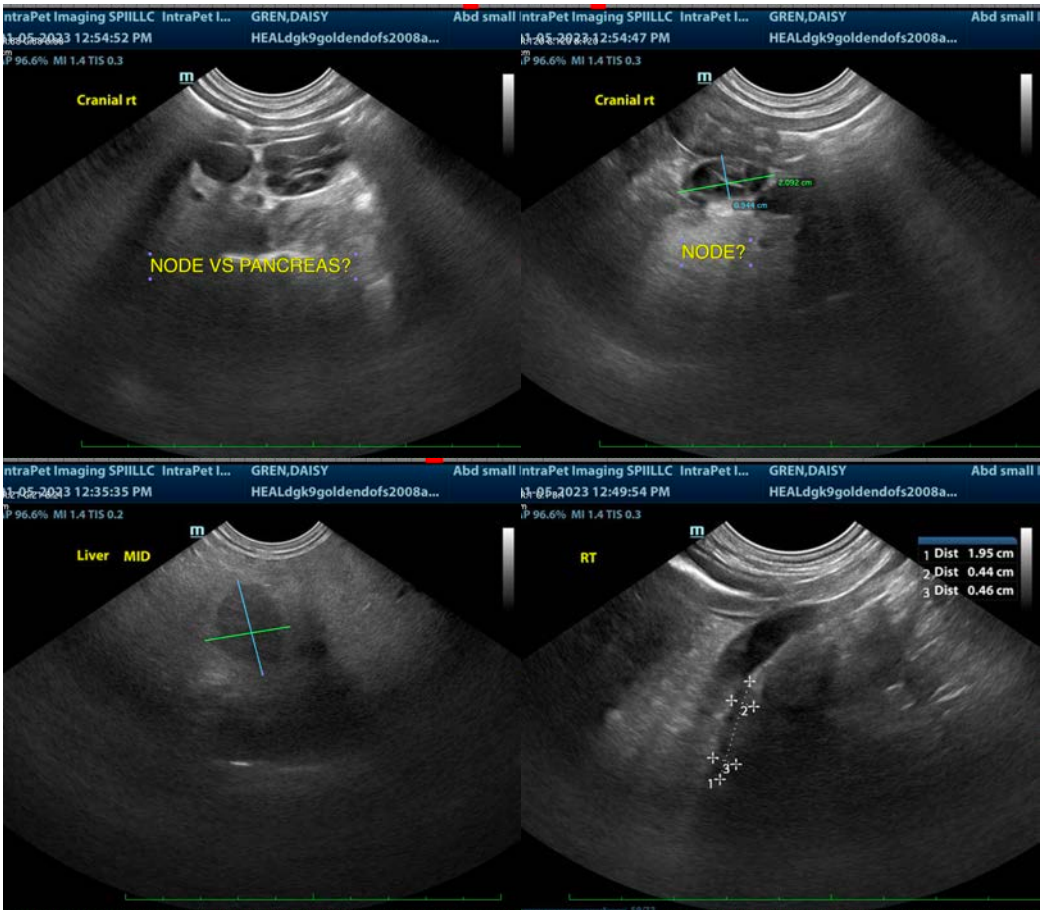
- **Chronic Cystitis -** Urinary bladder wall changes are most consistent with chronic cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely give the location and diffuse nature of the changes.

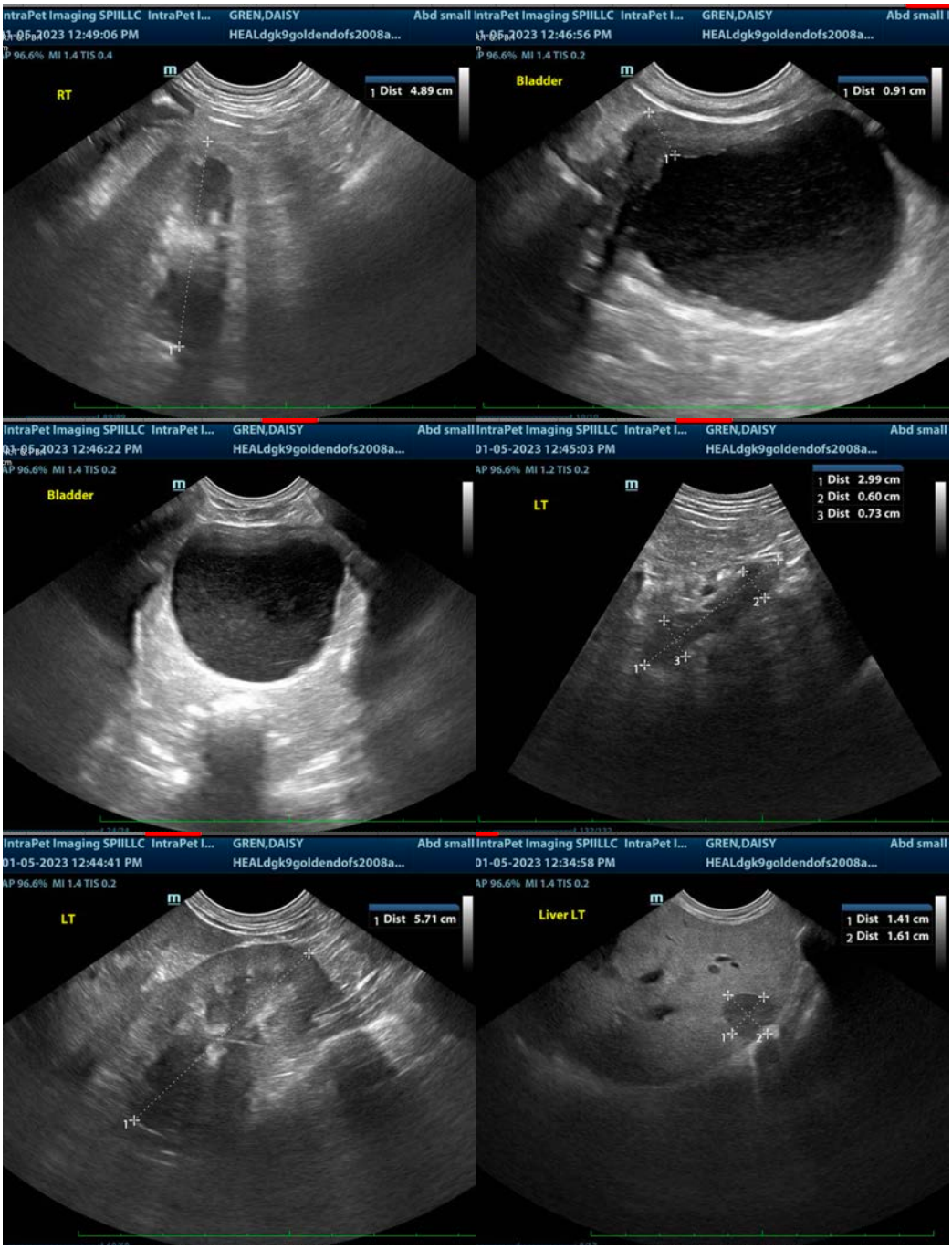
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given this patient's presenting complaint of a persistent urinary tract infection, recommendations are a urine culture to be sure that treatment is based on culture and sensitivity results if possible. If patient is currently on antibiotics, culture should not be obtained until 5-7 days after finishing the antibiotics to prevent a false negative.

Once appropriate treatment has been initiated, recommendations are to manage the urinary tract infection as a complicated urinary tract infection, which means a longer potentially 4+ week course of antibiotics, including a 2nd culture 7-10 days after starting antibiotics to ensure no secondary pathogens, etc., as well as a final follow up culture a week to 10 days after finishing antibiotics to be sure the infection has fully cleared.

Both the hepatic and cystic cranial abdominal structure changes could be incidental benign age related changes. However, given this patient's reported weight loss, a fine needle aspirate of both the liver nodules as well as the cystic structure (if it can safely be reached and patient's coagulation status is appropriate) could be considered.

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Bladder
1 Dist 0.91 cm
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LT
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2 Dist 0.60 cm
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LT
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Liver LT
1 Dist 1.41 cm
2 Dist 1.61 cm

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
Beth.Johnson@sonopath.com