

**DATE PRESENTING CLINICAL SIGNS**

8/12/22 Seen on 8/4 for ear infection. Slab fracture was noticed so in preparation for recommended Dental, BW and Cardiac Work Up was done. Elevated liver enzymes were noted. P was not clinical upon first visit and has since had a decrease in appetite and energy level.

PATIENT

Harley Miloro Current Medications: When medicated successfully, was recently RX'd Clindamycin and we will be administering Gabapentin and Mirtazipine today (8/10)

SPECIES

Canine

Lab Results: See attached.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

BREED

Labrador X

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Neutered Male

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.

AGE

8/6/16

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

WEIGHT

67 Pounds

The right kidney is normal in size (6.41 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.

INTERPRETED BY

Beth Johnson, DVM
DACVIM

The left kidney is normal in size (6.67 cm) with a disruption of normal corticomedullary architecture and normal peripheral contour noted, caused by the presence of multifocal heterogeneous, primarily hypoechoic nodules. Pericapsular area is enhanced by hyperechoic fat and mesentery. Free fluid is noted around the left kidney. No mineral is observed.

IMAGING PERFORMED BY

Rachel Brillhart RDMS

Adrenal Glands

The right adrenal gland is normal in size (3.27 cm long x 0.98 cm at the cranial pole and 0.93 cm at the caudal pole.), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

HOSPITAL NAME

Greenbrier Vet Clinic

The left adrenal gland is normal in size (2.8 cm long x 0.63 cm at the cranial pole and 0.75 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

REFERRING VET

Dr. Boccanfuso

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.

INVOICE

40409

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is mottled by multifocal discrete hypoechoic nodules of varying sizes, measuring up to 5.0 cm in diameter. Visible vasculature and biliary tree appear normal without distension or congestion.

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 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 a small amount of anechoic free fluid noted in the abdomen, as mentioned above.

Lymph nodes are diffusely enlarged (involving lymph nodes from the sublumbar area through the mesentery all the way to the cranial abdomen) with swollen irregular capsular contour and loss of normal length to width ratio (rounded in shape). Nodes are hypoechoic with loss of normal parenchymal detail.

PRIMARY FINDINGS

- **Nodular Liver** - This finding is concerning for infiltrative disease such as round cell neoplasia or metastatic neoplasia. Benign disease (nodular hyperplasia) cannot be ruled out but is considered less likely.
- **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.
- **Nodular left kidney** – highly suggestive of infiltrative neoplasia such as round cell neoplasia.
- **Diffuse aggressive lymph nodes** – most consistent with infiltrative round cell or metastatic neoplasia. A benign aggressive inflammatory response cannot be ruled out without tissue sampling +/- culture.

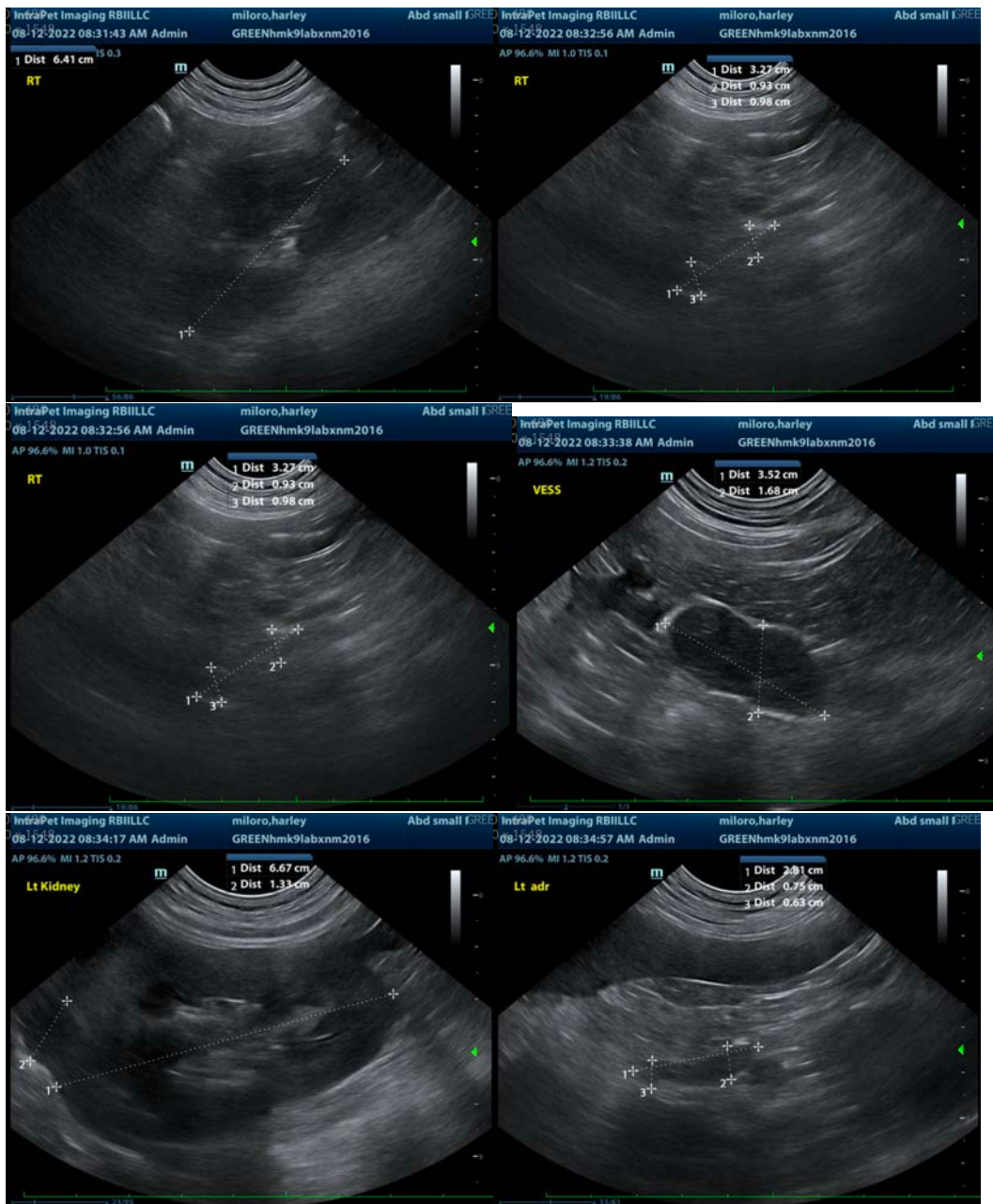
SECONDARY FINDINGS

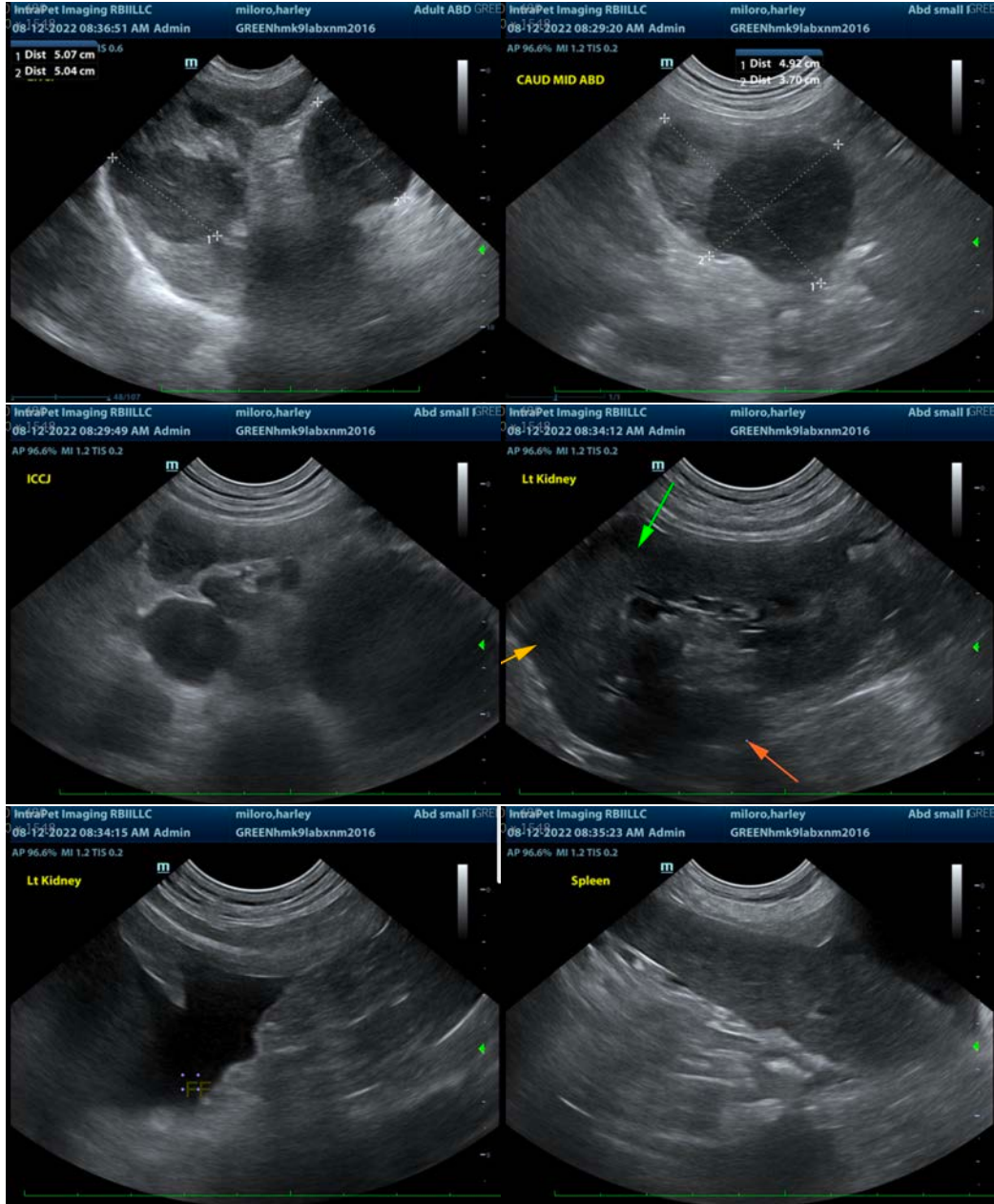
- **Gallbladder debris** - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The top differential for the pathology described above is infiltrative neoplasia such as round cell neoplasia with lymphoma being the top differentials. Recommendations include a fine needle aspirate of the liver nodules and/or the enlarged lymph nodes, if patient's coagulation status is appropriate. An aspirate of the left kidney could be performed as well. However, a diagnosis will likely be obtained from the easier to reach liver nodules and enlarged lymph nodes.

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.







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.

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