

**DATE PRESENTING CLINICAL SIGNS**

2/23/23

Patient presented for routine physical exam. Has some mild weight loss and muscle atrophy. Appetite is intermittent. Owner notices that she is sleeping more than normal.

**PATIENT**

Kaleigh Oates

Current Medications: None at this time.

Radiographs: Mass in mid abdomen.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

**SPECIES**

Canine

**BREED**

Labrador

**SEX**

Spayed Female

**AGE**

3/12/10

**WEIGHT**

51 Pounds

**INTERPRETED BY**Beth Johnson, DVM  
DACVIM**HOSPITAL NAME**

Madonna Vet Clinic

**REFERRING VET**

Dr. Brockett

**INVOICE**

45466

**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 (7.21 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 (7.0 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 (3.26 cm long x 1.11 cm at the cranial pole and 0.88 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 (1.93 cm long x 0.63 cm at the cranial pole and 0.78 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. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). Two large, heterogeneous, partially cavitated masses are present that disrupt the splenic capsule. One measures 6.5 cm x 4.5 cm in size approximately, and the other larger mass measures approximately 15.0 cm x 9.5 cm. Splenic vasculature appears normal.

**Liver**

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. In the right caudal liver, there is an approximately 8.0 cm in diameter homogeneous, iso- to slightly hypoechoic mass. 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. 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 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. 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 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.

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

## **PRIMARY FINDINGS**

- Multiple mixed cavitated splenic masses – concerning for infiltrative neoplasia such as sarcoma. While considered less likely, however, benign cysts, hematomas, extramedullary hematopoiesis, etc. can mimic malignancy and cannot be ruled out without tissue sampling.
- The more discrete homogeneous liver mass may represent the same underlying etiology/metastatic lesion, or a second infiltrative neoplasia such as round cell neoplasia or primary hepatocellular carcinoma versus other. However, the liver lesion trends more in appearance toward benign and could simply represent nodular hyperplasia, steroid or vacuolar hepatopathy, etc.

## **SECONDARY FINDINGS**

- **Mild 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.

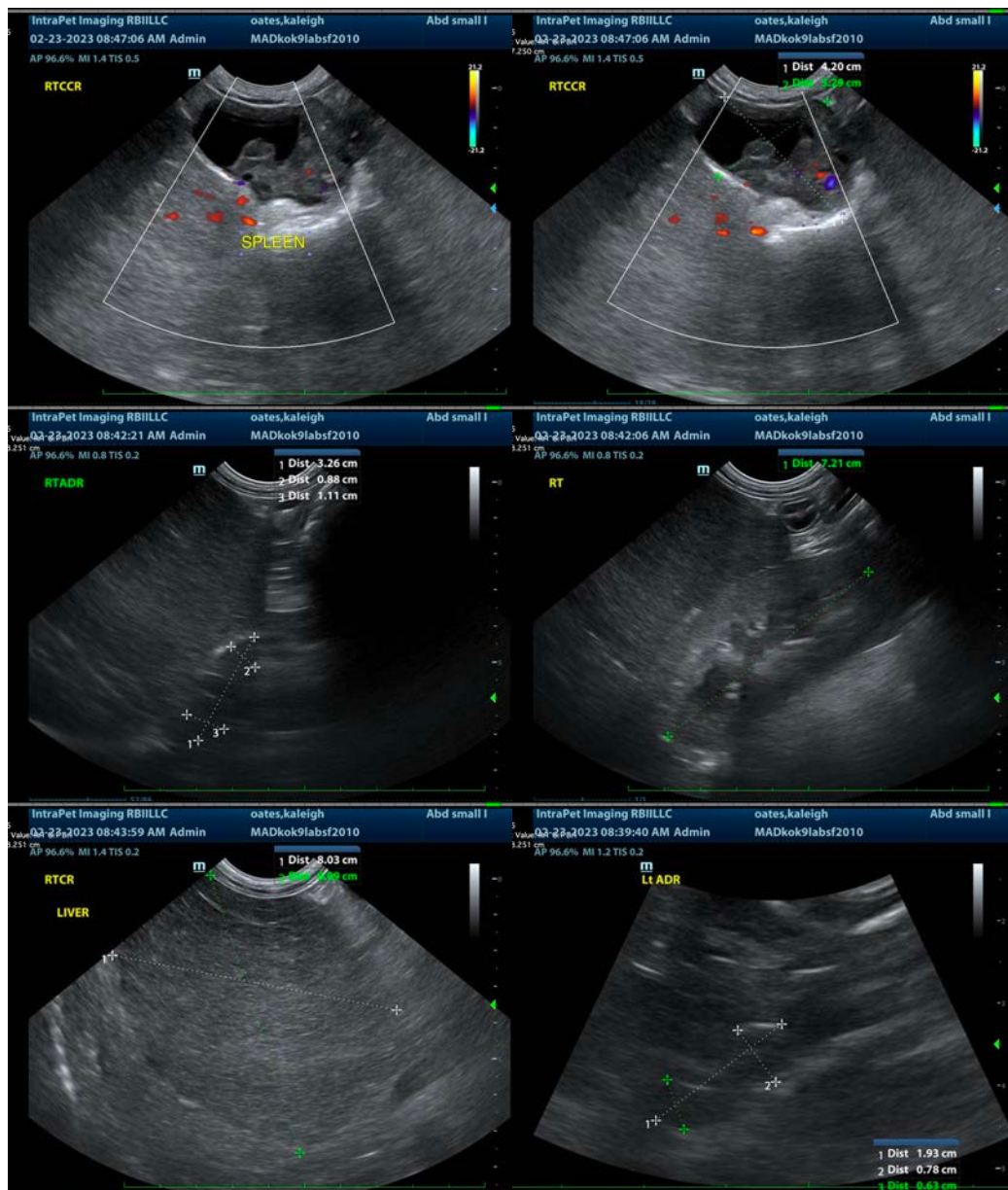
## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

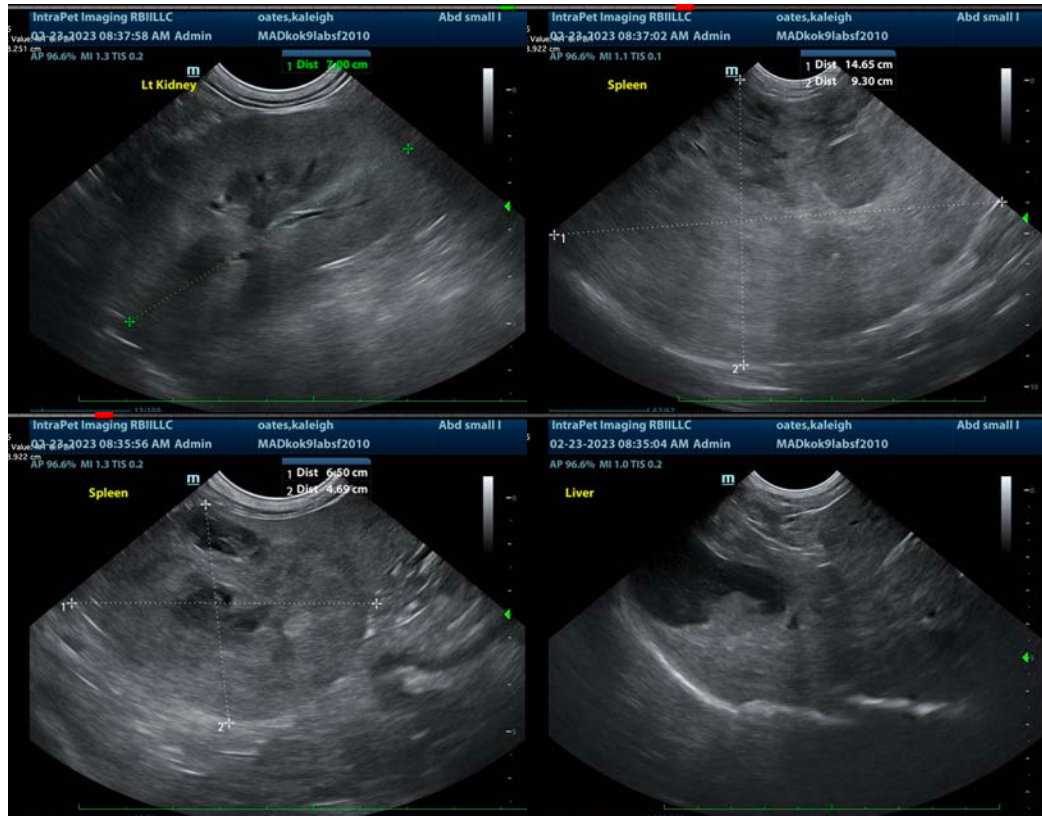
Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

If not recently evaluated, a general metabolic health screen is recommended in the form of a CBC/Chem panel, electrolytes, a urinalysis and, if indicated based on urinalysis results, urine culture. If protein is present

in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended.

A fine needle aspirate of the more solid appearing liver mass is recommended if patient's coagulation status is appropriate to further evaluate possible metastatic disease prior to ultimately planning a surgical splenectomy. A splenectomy is recommended over fine needle aspirates of the spleen, given the risk for hemoabdomen with even benign lesions. Alternatively, surgery could be pursued immediately, at which time splenectomy and liver mass removal could be performed simultaneously. Given the location of the liver mass, resectability (while can't be guaranteed based on ultrasound alone) seems possible.





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