



**PATIENT PRESENTING CLINICAL SIGNS**

Lola Lee Patient presents for urinating more, progressively elevating liver values since 2021. Owners do NOT feel patient is drinking more. Current meds: Interceptor and Denamarin.

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: ALT 367, ALP 1375, Na 156, Chol. 397, ALT 693. U/A: trace protein, no UTI, USG 1.016.

**BREED**

Beagle X

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**SEX**

Spayed Female

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**

15 Years

The right kidney is normal in size (5.12 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.

**WEIGHT**

28.6 Pounds

The left kidney is normal in size (5.12 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

**Adrenal Glands**

The right adrenal gland is normal in size (1.97 cm long x 0.85 cm at the cranial pole and 0.45 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 (2.21 cm long x 0.46 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.

**IMAGING PERFORMED BY**

Kelly Vazquez

**Spleen**

**HOSPITAL NAME**

Animal General  
on the Hudson

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**

**REFERRING VET**

Dr. Daniel Tierney

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is markedly heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion. The left caudal liver contains a 3.5-4.0 cm in diameter more discrete, homogeneous, hypoechoic mass.

**INVOICE**

44512

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.

**DATE**

1/25/23

**Gastrointestinal**

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.



**PATIENT**

Lola Lee

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.

**SPECIES**

Canine

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

**BREED**

**Pancreas**

Beagle X

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.

**SEX**

Spayed Female

**Free Abdomen**

**AGE**

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

15 Years

There is no apparent lymphadenopathy noted in these images.

**WEIGHT**

28.6 Pounds

**ULTRASONOGRAPHIC FINDINGS**

- **Heterogenous Liver** – These changes can occur with benign processes such as nodular hyperplasia, steroid vacuolar hepatopathy, extramedullary hematopoiesis, or possibly chronic inflammatory disease, but given the marked degree of change in these images combined with the mass-like appearance of the caudal left liver, infiltrative neoplasia including primary hepatic neoplasia, infiltrative round cell neoplasia, or even metastatic neoplasia cannot be ruled out without tissue sampling.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**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.

Fine needle aspirates of the liver, including both the diffuse heterogeneous change as well as the more focal left caudal mass are recommended if patient's coagulation status is appropriate.

**IMAGING PERFORMED BY**

Kelly Vazquez

**HOSPITAL NAME**

Animal General  
on the Hudson

**REFERRING VET**

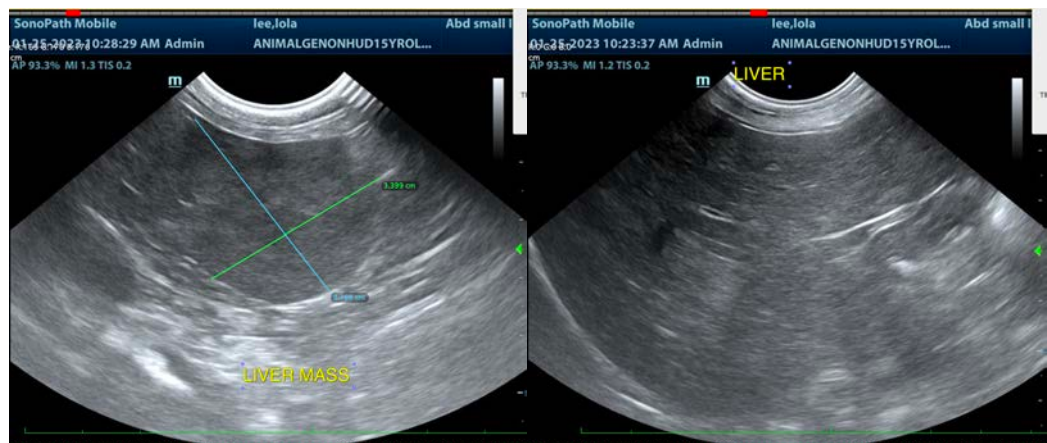
Dr. Daniel Tierney

**INVOICE**

44512

**DATE**

1/25/23





**PATIENT**

Lola Lee

**SPECIES**

Canine

**BREED**

Beagle X

**SEX**

Spayed Female

**AGE**

15 Years

**WEIGHT**

28.6 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Kelly Vazquez

**HOSPITAL NAME**

Animal General  
on the Hudson

**REFERRING VET**

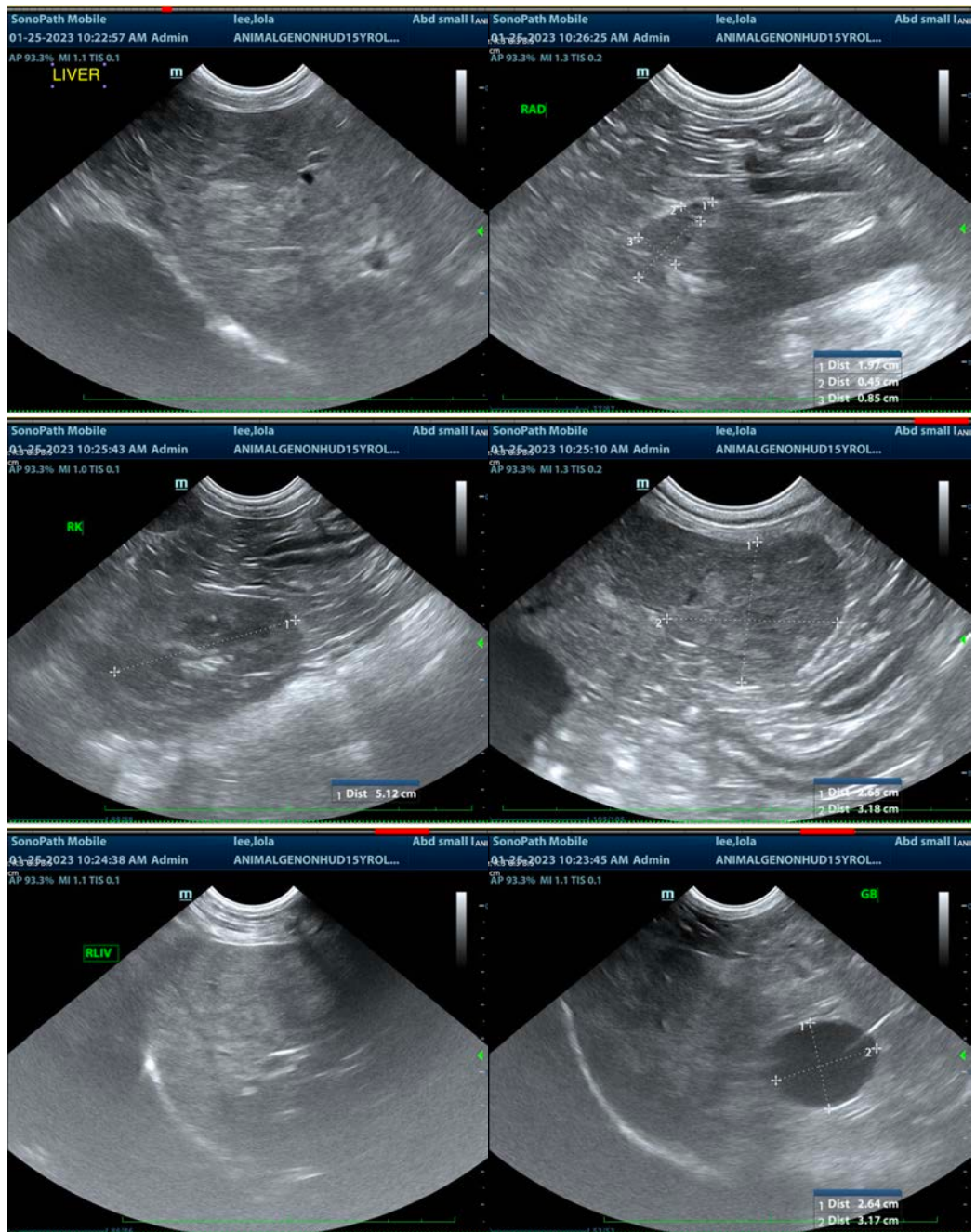
Dr. Daniel Tierney

**INVOICE**

44512

**DATE**

1/25/23





**PATIENT**

Lola Lee

**SPECIES**

Canine

**BREED**

Beagle X

**SEX**

Spayed Female

**AGE**

15 Years

**WEIGHT**

28.6 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Kelly Vazquez

**HOSPITAL NAME**

Animal General  
on the Hudson

**REFERRING VET**

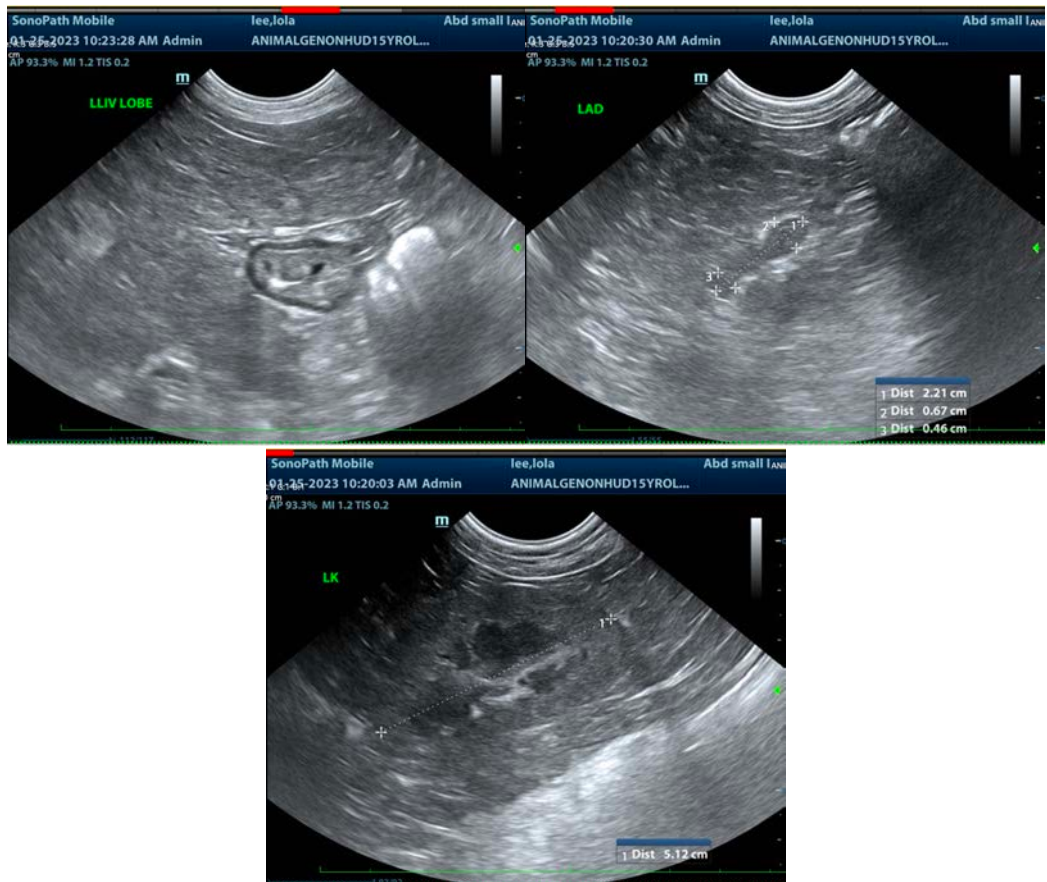
Dr. Daniel Tierney

**INVOICE**

44512

**DATE**

1/25/23



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