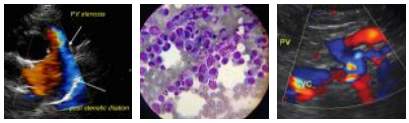
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE

2/27/23

PATIENT

Shiloh Loayza

SPECIES

Canine

BREED

Beagle

SEX

Spayed Female

AGE

10/26/10

WEIGHT

24 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

HOSPITAL NAME

North Laurel AH

REFERRING VET

Dr. Cohn

INVOICE

21314

PRESENTING CLINICAL SIGNS

History: Progressive liver enzyme elevation.

Current Medications: None listed.
Lab Results: See attached.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Stephanie Warga RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately 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.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The left kidney measures 5.14 cm. The right kidney measures 5.24 cm.

Adrenal Glands

Adrenal glands are largely normal in size, shape and contour. Some parenchymal heterogenicity is present without concerning capsular distortion. These changes are likely normal for this age but should be monitored if there is any suspicion of adrenal disease. The left adrenal gland measures 2.44 cm long x 0.88 cm at the cranial pole and 0.85 cm at the caudal pole. A hyperechoic nodule is noted in the cranial pole of the left adrenal gland. The left adrenal nodule does not disrupt normal shape and/or architecture. The right adrenal gland measures 2.08 cm long x 0.52 cm at the cranial pole and 0.66 cm at the caudal pole. A hyperechoic nodule is noted in the mid right adrenal gland. The right adrenal nodule does not disrupt normal shape and/or architecture.

Spleen

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

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

Gallbladder is mildly overdistended with a moderate amount of non-dependent, mildly aggregated/inspissated sludge. Hypo to anechoic cystic areas are noted between the gallbladder sludge and luminal wall. The wall is otherwise smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion.

Gastrointestinal

The visible stomach wall is diffusely normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent. However, just past the level of the gastroesophageal sphincter, there is a heterogenous hypoechoic nodular/mass-like appearance to the gastric wall, measuring 5.0 cm long x 1.8 cm in wall thickness.

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 empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- A heterogenous gastric polyp/mass, that appears to be just distal to the gastroesophageal sphincter- This is concerning for infiltrative neoplasia, such as round cell neoplasia vs carcinoma, leiomyosarcoma vs other. Benign polyp or other benign inflammatory disease is possible but considered less likely.

- Emerging mucocele – 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. The non-dependent nature of this sludge combined with the cystic areas are suggestive, however, of possible emerging cystic mucosal hyperplasia or early gallbladder mucocele.

- Heterogenous Liver with additional liver nodules– 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. Differentials for a discrete liver nodules include primarily benign changes such as nodular hyperplasia, fibrosis of old hematomas, granulomas, myelolipomas, etc.; however, while considered less likely, primary hepatic neoplasia, infiltrative round cell neoplasia and metastatic disease can mimic benign lesions and cannot be definitively ruled out.

- Age related adrenal gland changes with bilateral hyperechoic adrenal nodules – 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.

Secondary Findings

- Age related kidney changes

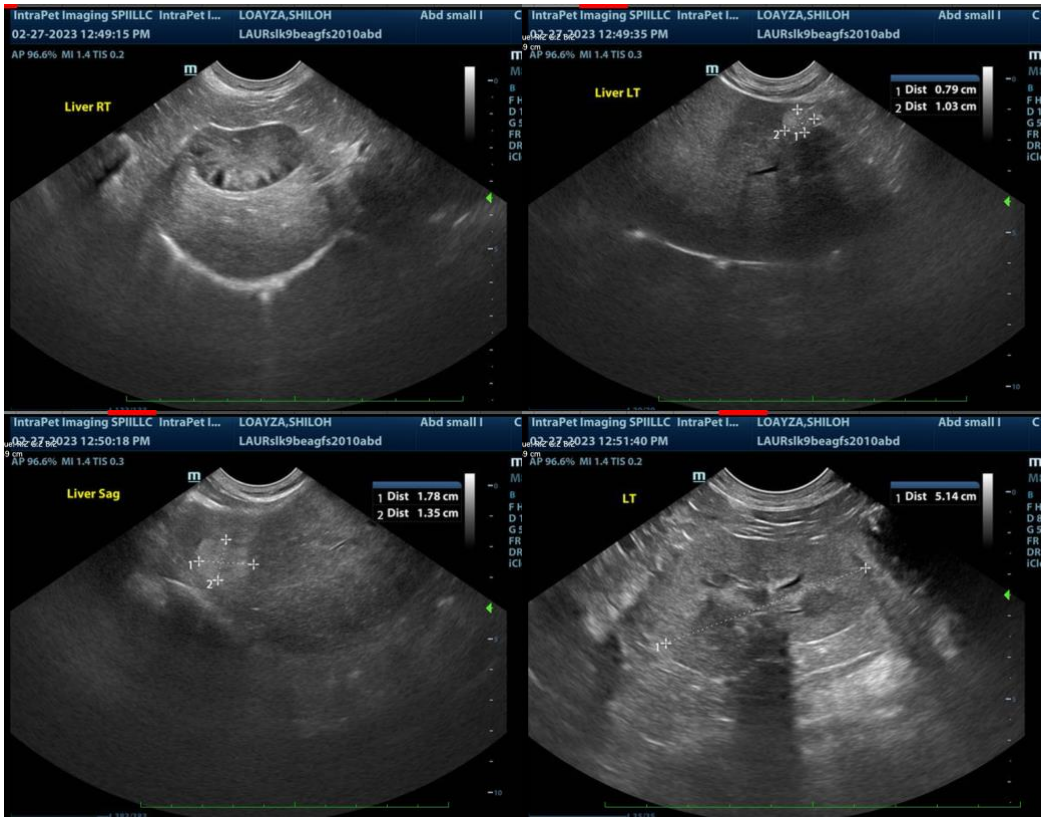
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

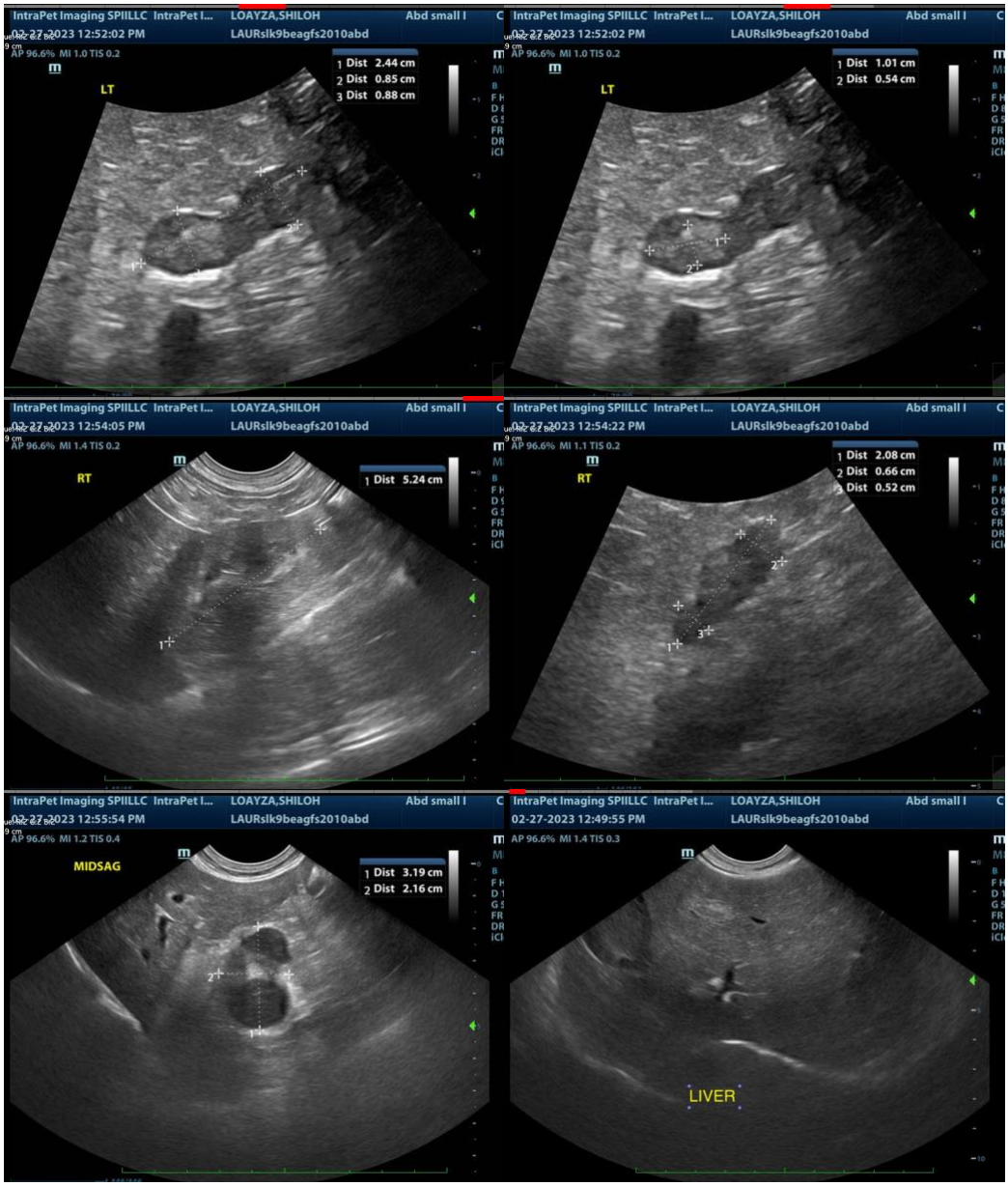
The cause of this patients liver enzymes is most likely a combination of an emerging gallbladder mucocele +/- concurrent hyperadrenocorticism. While the nodular appearance to the liver trends in appearance towards benign, concurrent infiltrative disease, however, cannot be ruled out.

A fine needle aspirate of the liver could be considered if patients coagulation status is appropriate.

Additionally, if clinical signs of hyperadrenocorticism are present, testing could be considered in the form of a LDDST, however, further evaluation of hyperadrenocorticism is not recommended without supporting clinical signs and is not recommended in the face of concurrent illness, which in this patient, is present in the form of the incidentally discovered gastric mass. Recommendations are further evaluation of that mass, prior to the other, beginning with three view thoracic radiographs, for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated, as well as a fine needle aspirate of the gastric mass if patients coagulation status is appropriate.

If a cytologic diagnosis is not obtained, or the mass can't be safely reached, endoscopy should also allow visualization and biopsy.

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AP 96.6% MI 1.0 TIS 0.2
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1 Dist 2.44 cm
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2 Dist 2.16 cm
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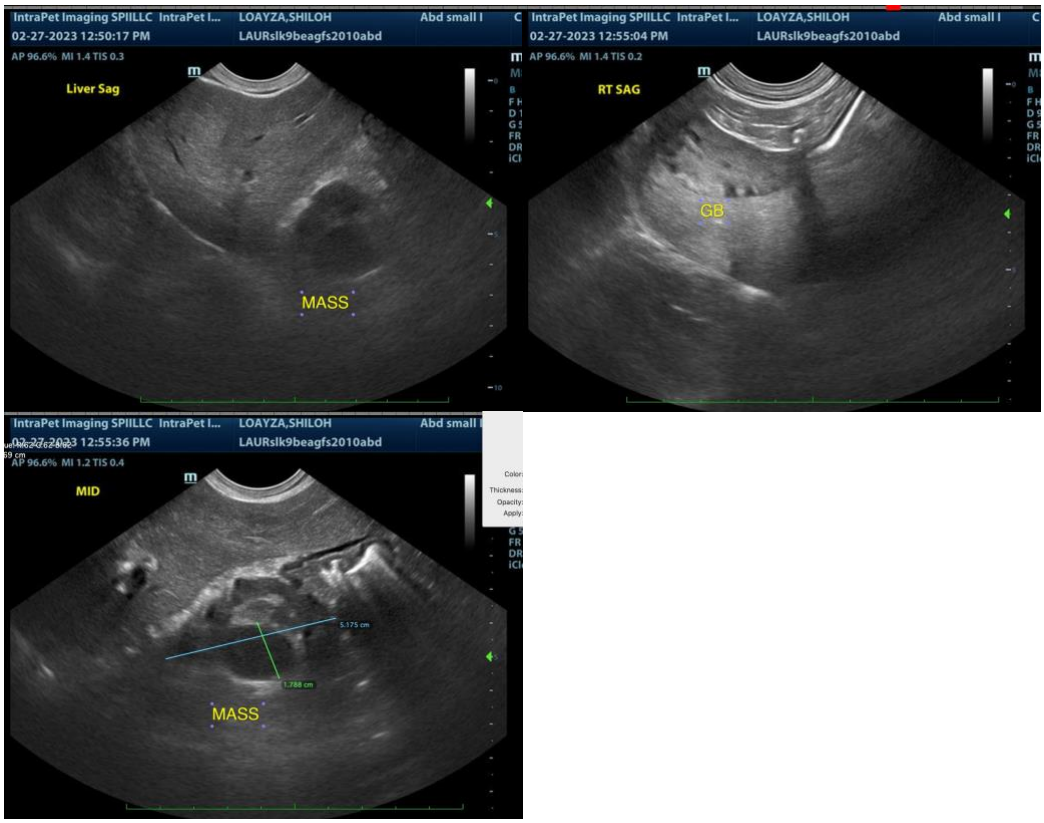
AP 96.6% MI 1.4 TIS 0.3
LIVER



The information and recommendations provided are based on the images presented by the referring veterinarian. 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