

**DATE PRESENTING CLINICAL SIGNS**

7/11/23 Presented on 06/26/23 for senior exam and elevated liver and pancreas levels on routine senior blood Work. PE: Overall unremarkable, no abdominal discomfort or abnormalities palpated, C/L wnl
PATIENT No clinical signs at home

Lucy Hopkins Current Medications: None listed.
 Lab Results: Senior Profile CBC NSF. Chem 27: ALT (H) 210, Chol (H) 429, Amy (H) 1521, Lipase (H) 1360 T4 2.1. UA to follow

SPECIES Date of Previous IntraPet Ultrasound: No previous.
 Canine Sedation: Patient sedated with Dexdomitor.
BREED Stat Report: Not requested.
 Pointer X Imaging Performed By: Andi Parkinson, BS, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

SEX 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.
 Spayed Female

AGE The right kidney is normal in size (5.94 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.
 1/3/12

WEIGHT The left kidney is normal in size (6.43 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.
 61 Pounds

INTERPRETED BY

Beth Johnson, DVM
 DACVIM

Adrenal Glands

The right adrenal gland is normal in size (1.3 cm at the cranial pole and 0.88 cm at the caudal pole), shape and contour. Hyperechoic nodules are noted in the cranial and caudal pole. Nodules do not disrupt normal shape and/or architecture. The nodule in the cranial pole measures 0.70 cm x 0.90 cm. The nodule in the caudal pole measures 0.60 cm x 0.80 cm. Visible surrounding vasculature appears normal.

HOSPITAL NAME

Perry Hall AH

The left adrenal gland is normal in size (1.1 cm at the cranial pole and 0.63 cm at the caudal pole), shape and contour. A hyperechoic nodule is noted in the cranial pole, measuring approximately 0.50 cm x 1.2 cm. Nodule does not disrupt normal shape and/or architecture. Visible surrounding vasculature appears normal.

REFERRING VET

Dr. Baer

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.

INVOICE

43894

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. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

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.

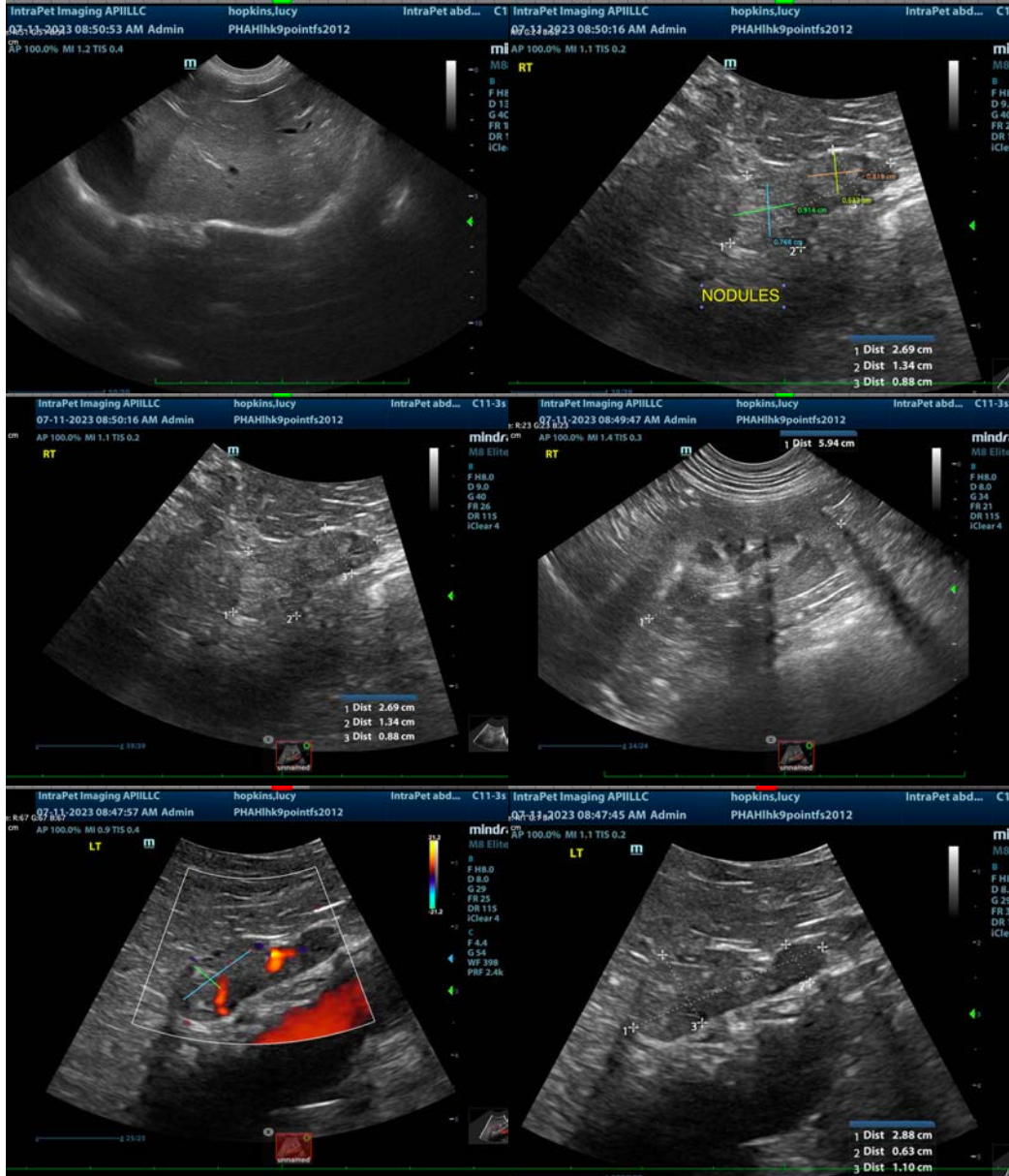
There is no apparent lymphadenopathy noted in these images.

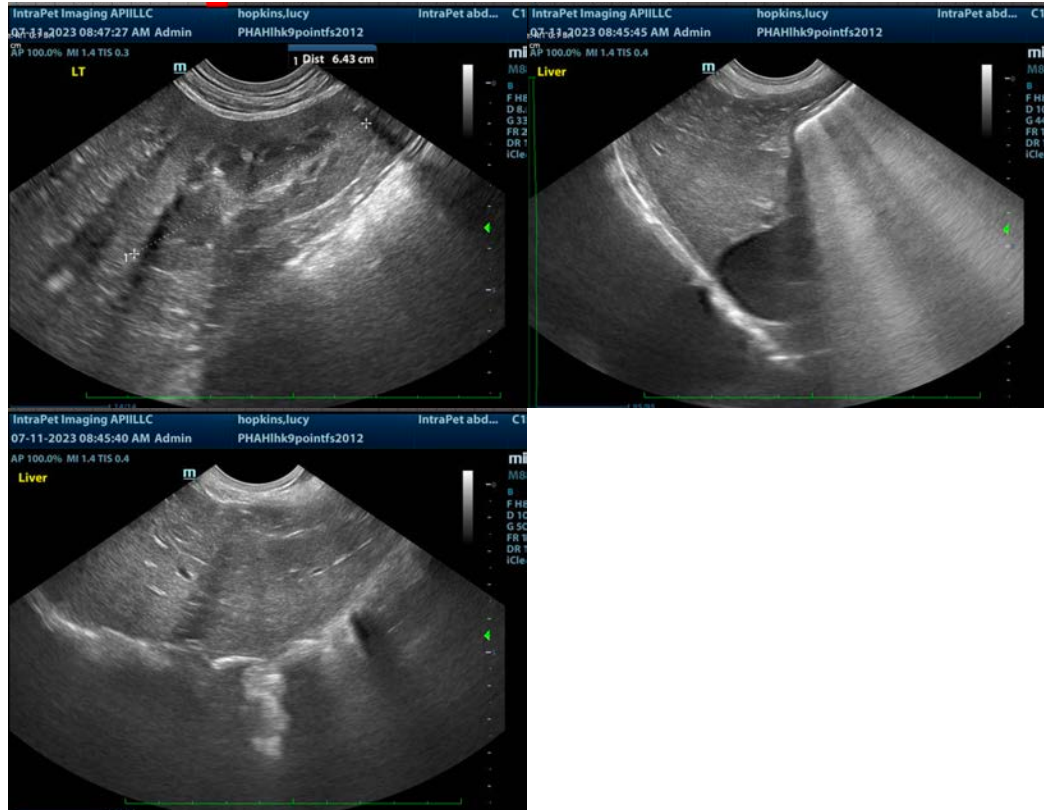
ULTRASONOGRAPHIC FINDINGS

- Hyperechoic adrenal nodule in the caudal pole of the left adrenal and cranial and caudal poles of the right adrenal gland – 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. The significance of this finding is unknown and should be interpreted in combination with clinical signs of possible adrenal disease, and likely just monitored (i.e., recheck ultrasound in 3 months) if there are no clinical signs of hyperadrenocorticism.
- An obvious cause for the reported increased liver enzymes is not identified in these images. Microscopic disease such as Leptospirosis, bacterial cholangiohepatitis, chronic active hepatitis, copper-associated hepatotoxicity, other hepatotoxicity, infiltrative neoplasia (considered unlikely), etc. cannot be definitively ruled out.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Recommendations include an “antigen search” for sources of reactive hepatopathy (including testing for Leptospirosis), followed by a course of empirical antibiotics and hepatic nutraceuticals, with monitoring of ALT for improvement. If improvement is noted, antibiotics should be continued until liver enzymes either normalize or plateau (recheck every 2-3 weeks); however, if improvement is not noted and/or enzyme increase progresses, antibiotics should not be continued long term and sampling, beginning with a FNA of the liver if patient’s coagulation status is appropriate or progressing to a liver biopsy (including copper level assessment) may ultimately be warranted.





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
info@sonopath.com