



PATIENT

Lele Hedman

SPECIES

Canine

BREED

Shih Tzu

SEX

Spayed Female

AGE

13

WEIGHT

6.3

INTERPRETED BY

Tam Mengine, DVM,
DABVP (canine/feline
practice)

IMAGING PERFORMED BY

Dr. Melissa Helstein

HOSPITAL NAME

Veterinary Emergency
Group- Burlington, VT

REFERRING VET

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DATE

05/15/26

PRESENTING CLINICAL SIGNS

Lele, a 13-year-old FS Shih Tzu that presents today for evaluation of hyporexia and recent history of increased water intake with previously elevated liver enzymes. Owner reports Lele was drinking approximately 1 quart of water per day for a couple of months, which prompted initial veterinary evaluation where elevated liver enzymes were found. Water intake has now decreased along with appetite; today she is not eating and is barely drinking. She ate normally as of Sunday, with decreased appetite first noticed Monday; she was seen by the primary vet Tuesday and again yesterday. An appetite stimulant was given yesterday with minimal effect after one dose. One episode of mild vomiting occurred 2 nights ago after eating chicken. Lele stayed with the owner's son from a week ago Wednesday until Sunday, around the time lethargy was noted there. No known toxin exposures reported. Diet typically includes kibble with pumpkin and occasional canned meat; sporadic chicken and carrots as human foods. Lele has been on Denamarin for 2-3 weeks. History of elevated liver enzymes: ALT 535 U/L and ALP 189 U/L in March; most recent labs show ALT 262 U/L and ALP 155 U/L with improvement Anaplasma positive since 6/4/24 Reported low platelets on recent outside lab work

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine, and no luminal sediment is present. The ureteral papillae, trigone and pelvic urethra (visible to 3.0 cm) are of normal appearance, and the ureters are not visible (normal). No masses, calculi or mucosal irregularities are noted.

Both kidneys are hyperechoic and exhibit mildly decreased cortico-medullary differentiation. There is focal mineralization present within the renal cortex and medulla bilaterally. There is trace dilation of the renal pelvis, with anechoic contents. There is no evidence of nephrolithiasis or hydronephrosis. The proximal ureters are not visible (normal). The left kidney is 3.7 cm in length. The right kidney is 3.7 cm in length.

Adrenal Glands

The adrenal glands are both identified in their normal locations. There is a 2.0 cm x 2.5 cm heterogeneous mass arising from the caudal pole of the right adrenal gland. Vascular invasion is not evident. There was also a 3.0 mm hyperechoic nodule noted within the caudal pole of the left adrenal gland. They are otherwise normal in size and shape with appropriate parenchymal echogenicity and normal phrenic vasculature. The right adrenal gland height is 4.4 mm at the cranial pole and 6.7 mm at the caudal pole. The left adrenal gland height is 5.5 mm at the cranial pole and 2.5 mm at the caudal pole

Spleen

The spleen is of appropriate size and has a normal, homogenous parenchyma with a smooth, continuous capsular surface. The splenic vasculature is normal with no evidence of congestion or thrombosis, and blood flow through the splenic hilus appears normal.

Liver

The liver parenchyma is diffusely heterogeneous and subjectively enlarged, with sharp borders. The portal and hepatic vasculature are of normal size and appearance with no evidence of congestion or thrombosis.



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The gallbladder is moderately distended with anechoic contents and a small amount of freely moveable echogenic sludge. The wall was thin and continuous with small focal polypoid lesions. The cystic and common bile ducts are normal / not visible.

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Gastrointestinal

The stomach is mildly distended with gas. The gastric wall is 3.3 mm with normal deviations due to rugal folds, and exhibits appropriate wall layering. The pylorus is of normal appearance.

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The visualized portions of the duodenum, jejunum, and ileum are of normal thickness with intact wall layering that exhibits the appropriate 1:3 muscularis to mucosa ratio. Intestinal motility appears normal.

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The visible portions of the colon (1.3 mm) are of normal thickness with intact wall layering. The ileocecal junction is not seen.

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Pancreas

The areas of the limbs and body of the pancreas are isoechoic to the surrounding mesenteric fat, with normal capsular appearance. There is no evidence of peripancreatic inflammation. The pancreatic duct appears normal.

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Free Abdomen

There is no evidence of free fluid within the peritoneal cavity. The omentum and intra-abdominal fat are of appropriate echogenicity. Enlarged abdominal lymph nodes are not observed. The aortic trifurcation has normal blood flow with no evidence of thrombosis.

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PRIMARY FINDINGS

- Right adrenal mass.
- Diffusely heterogeneous liver consistent with nonspecific hepatopathy.

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SECONDARY FINDINGS

- Small hyperechoic left adrenal nodule.
- Bilateral chronic degenerative renal changes.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The mass associated with the right adrenal gland may represent a benign adenoma, malignant adenocarcinoma, pheochromocytoma, or other neoplasia. Given the history of polyuria and polydipsia and the fact that the patient feels ill, a biologically active mass or malignancy is a concern. Additional recommendations include:

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- ❖ three-view chest radiographs to screen for metastasis
- ❖ blood pressure measurement to screen for pheochromocytoma

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- ❖ given that signs of Cushing's disease are present, then adrenal function testing (either a low-dose dex-suppression test or ACTH stimulation test) is recommended



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❖ measurement of urine catecholamine metabolites can help to identify a pheochromocytoma. Availability of this testing has been variable but may currently be available from Marshfield Laboratories or Idexx Laboratories.

❖ further assessment via CT scan would also be warranted, especially if adrenalectomy is a consideration.

The changes in the liver are nonspecific, and most typical of a benign or reactive hepatopathy. While hepatic biopsy would be needed for a definitive diagnosis. Given the minimal elevation in liver enzymes, it is unlikely that hepatic disease is the primary cause of the patient's current symptoms.

The small hyperechoic nodule in the left adrenal gland is most likely an incidental finding, but the possibility of emerging neoplastic disease cannot be excluded. The changes in the kidneys are typical degenerative changes associated with patient age, and should be correlated with laboratory findings.





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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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