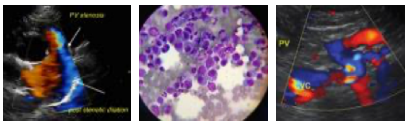
IMAGING PERFORMED BY

IntraPet.com



SonoPath
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DATE

3/14/22

PATIENT

Talula Lansinger

SPECIES

Canine

BREED

Labardor Retriever

SEX

Female, spayed

AGE

4/30/2010

WEIGHT

93 lbs.

INTERPRETED BY

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

HOSPITAL NAME

Everhart VH

REFERRING VET

Dr. Del Favero

INVOICE

13126

PRESENTING CLINICAL SIGNS

Presented 2/7 for urinating in the house, hematuria, and foul smelling urine. PE largely unremarkable. Bloodwork showed elevated liver enzymes (ALT 244, ALP 307). We were unable to get a urine sample at that time, so treated empirically with Enrofloxacin. Also started on Denamarin, but p would vomit after each dose so owner discontinued. Hematuria resolved, but p presented on 03/14/22 for pu/pd and now is also lethargic/not acting like herself. Concern for Cushing's, recommended abdominal US.

Current Medications: None.
Lab Results: 2/7/22- ALP 307, ALT 244.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Tprbugesic IV.
Stat Report: Not requested.
Imaging Performed By: Stephanie Pearce RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended. The dorsoapical wall is moderately thickened (0.63 cm) with a slightly irregular mucosal surface in this region. The remaining bladder wall is normal in thickness. Luminal contents are mostly anechoic. No cystic calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

The left kidney is normal size (7.15 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (7.80 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is enlarged (1.78 cm at cranial pole) (1.34 cm at caudal pole) (3.85 cm in length) with a slightly irregular shape. The parenchyma is heterogeneous in appearance with loss of glandular detail. A 0.20 cm hyperechoic focus is observed at the caudal pole. Surrounding vasculature appears normal.

The right adrenal gland is normal size (0.72 cm at cranial pole) (0.59 cm at caudal pole)(1.83 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is subjectively normal in size (1.75 cm in width at the level of the hilus) with normal curvilinear peripheral contours. The parenchyma is diffusely mottled with several small, ill-defined hypoechoic nodules, the largest measuring 1.07 cm in diameter. A 2.40 x 2.16 cm irregular hyperechoic to slightly heterogeneous nodule/mass is also seen. Splenic vasculature appears normal with no evidence of thrombosis.

Liver

The liver is normal to slightly small in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and subtly heterogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small to moderate amount of aggregated echogenic partially dependent debris/sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal
The gastric lumen is mildly gas distended. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is segmentally dilated with gas. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

Pancreas
The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen
The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

Other
A brief echocardiogram reveals no obvious evidence of pericardial effusion.

ULTRASONOGRAPHIC FINDINGS
Primary Findings:

- Non-specific diffuse hepatopathy. Differentials include inflammatory hepatopathy (i.e., chronic active hepatitis, bacterial cholangiohepatitis), hepatotoxicosis (i.e., copper), cirrhosis, other hepatopathy +/- concurrent regenerative nodular hyperplasia and/or vacuolar hepatopathy.

- Mild left adrenomegaly. Hyperplasia is a top differential with a possibility of emerging neoplasia.

Secondary Findings:

- Gallbladder debris/sludge, non-mucocele.

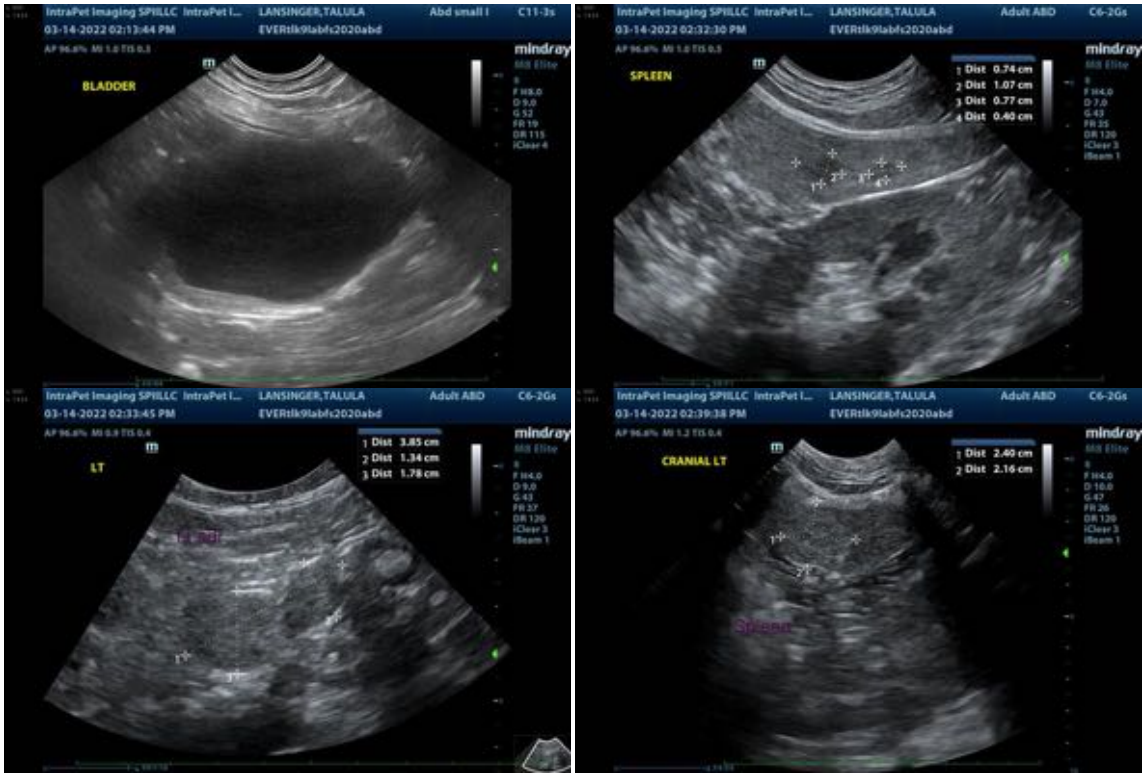
- The mild focal urinary bladder wall thickening is most consistent with cystitis with a lower possibility of emerging neoplasia.

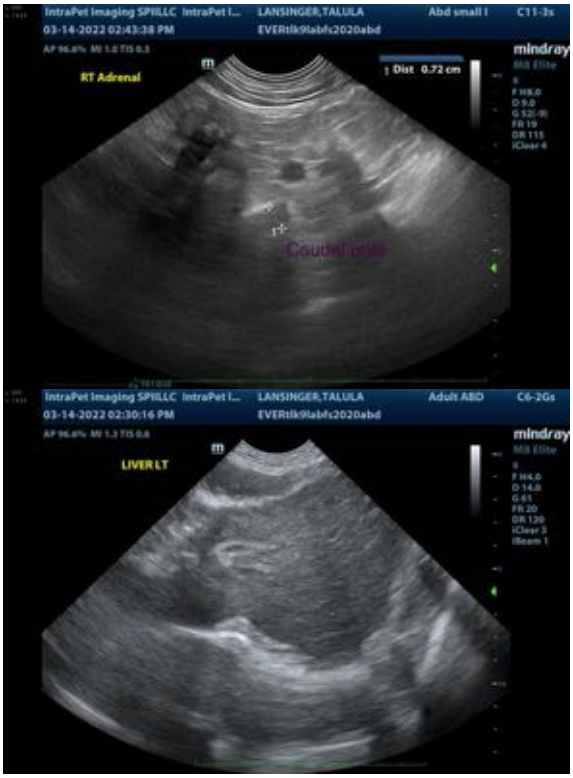
- The diffuse splenic parenchymal changes trend toward the benign (i.e., lymphoid hyperplasia, extramedullary hematopoiesis) with a lower possibility of emerging neoplasia. The hyperechoic nodule also trends toward the benign (i.e., myelolipoma). However, an early neoplastic process cannot be completely excluded.

*It is unclear whether the patient's clinical signs are secondary to a primary hepatopathy or hyperadrenocorticism.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS
- Pre and post prandial serum bile acids are recommended to assess hepatic function. If elevated, hepatic tissue sampling (i.e., fine needle aspirate or surgical biopsy) may be warranted. If sampling is pursued, surgical biopsies would be ideal as they are more likely to be representative of global organ pathology. If surgery is pursued, aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for potential copper quantitation are recommended.

- Further testing for Cushing's disease (i.e., low dose Dexamethasone suppression test or ACTH stimulation test) can also be considered, particularly if the serum bile acids are normal or only minimally elevated.
- Other diagnostic considerations include:
    1. Urinalysis
    2. Urine culture and sensitivity to rule out a resistant urinary tract infection
    3. UPC (if proteinuria is present)
    4. Baseline blood pressure measurement (given the left adrenomegaly)
- Consider a fine needle aspirate of the spleen to further assess for the presence of neoplasia.





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.

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