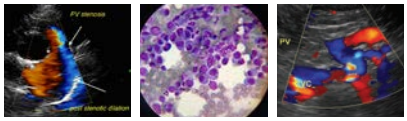
IMAGING PERFORMED BY

IntraPet.com



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Clinical Sonography & Telecytology
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DATE

2/2/23

PATIENT

Harley Levine

SPECIES

Canine

BREED

Labrador X

SEX

Neutered Male

AGE

11/16/08

WEIGHT

66.5 Pounds

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

HOSPITAL NAME

Fullerton AH

REFERRING VET

Dr. Levine

INVOICE

44730

PRESENTING CLINICAL SIGNS

Hasn't been anorexic but has had a decreased appetite for the past few weeks. Seen on 1/17/23. Radiographs were fairly unremarkable. Blood work consistent with pancreatitis, ALKP has previously been elevated. Decreased appetite has continued since the time of the exam, but now activity has decreased as well. It may be because Carprofen was stopped but want to r/o other causes.

Current Medications: Cefpodoxime 200mg that had been given for 10 days starting on 1/20. Stopped, but had. Been getting 75mg BID Carprofen. Cerenia at the time of 1/17 exam.
Lab Results: See attached.
Radiographs: See attached.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Andi Parkinson, BS, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall is diffusely mildly thickened (0.61 cm), and the mucosa is mildly irregular. The trigone, ureteral papillae, and visible urethra (to a depth of 2cm) appear normal with no evidence of severe mucosal irregularities, masses or cystic calculi. Findings are most consistent with bacterial cystitis or lack of urine distension. Recommend urinalysis and culture.

The prostate is normal in size (1.36 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (6.24 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.81 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal/borderline large in size measuring 1.01 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is large and irregular, measuring 1.29 cm at the cranial pole, 0.87 cm at the caudal pole, and 3.0 cm in length. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is somewhat abnormal in appearance in that the parenchyma is heterogeneous with ill-defined margins, and there is a small irregular extension off the caudal pole measuring 0.43 cm x 0.39 cm. While there is no direct vascular invasion visualized, there is concern that this irregularity on the caudal pole represents early extension/invasion.

Spleen
The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There is a small hypoechoic nodule visualized within the parenchyma, measuring 1.32 cm x 1.24 cm.

Liver
The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal
The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measures 0.37 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas
The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen
Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

Other
The right auricle and pericardium were visualized and were unremarkable. No obvious pathology is visualized. If cardiac function evaluation is desired a full echocardiogram is warranted.

ULTRASONOGRAPHIC FINDINGS

- Mild irregular/thickened urinary bladder wall – The bladder mucosal changes could be consistent with cystitis or artifactual due to lack of adequate luminal distension. Bladder neoplasia cannot be ruled out but is considered unlikely in this patient.

- Hypoechoic nodule in the spleen – There is a non-cavitated, hypoechoic splenic nodule visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.

- Heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

- Large, slightly irregular right adrenal gland – The changes are subtle but concerning for a possible early mass lesion. Adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No large focal mass is visualized to explain the symptoms reported.

The urinary bladder wall appears slightly irregular and thickened. Recommend a urinalysis and culture, looking for evidence of possible cystitis.

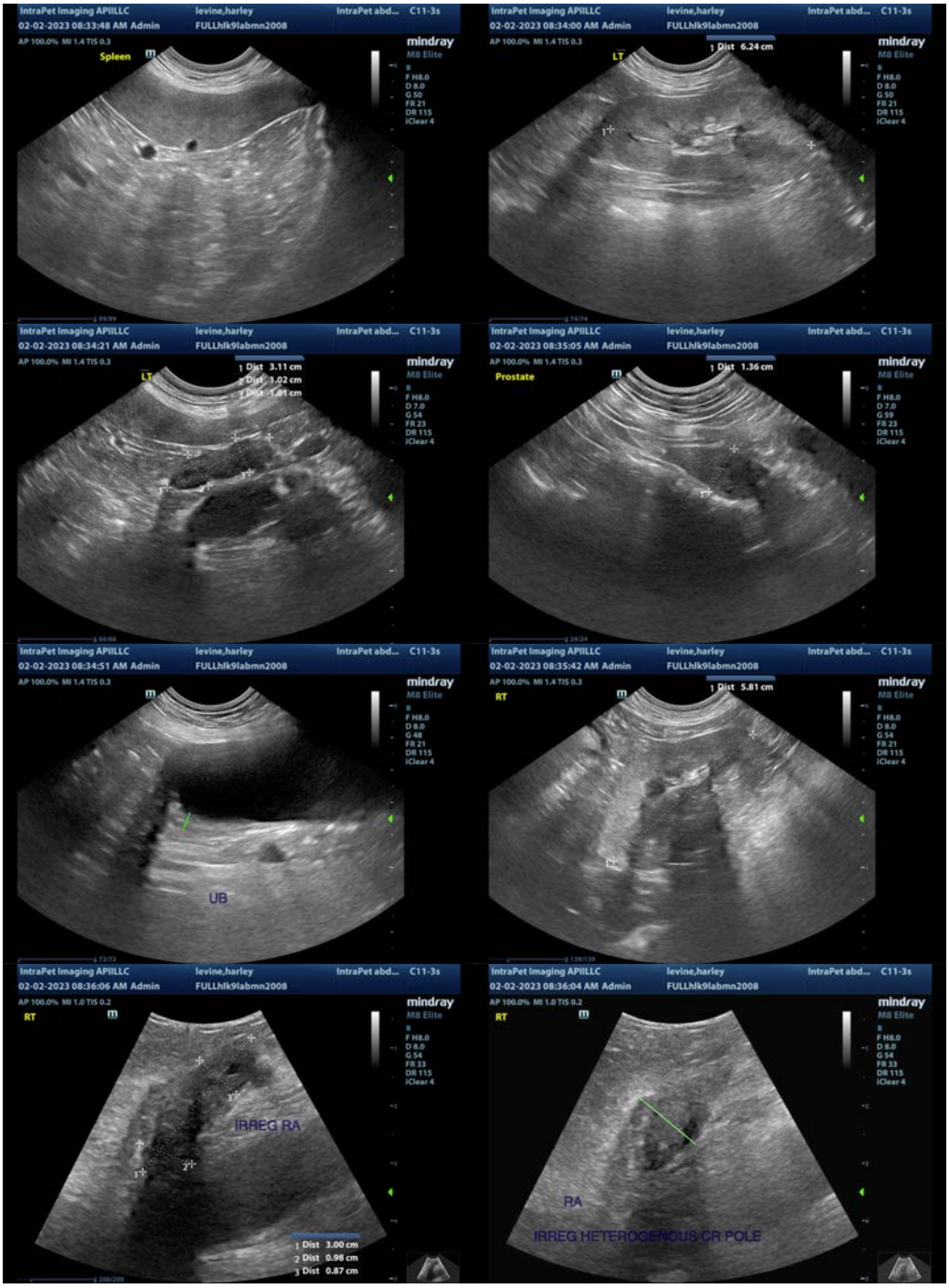
There is a small hypoechoic nodule in the spleen. This could represent a benign or neoplastic process. Options moving forward would include continued monitoring with ultrasound or a fine needle aspirate.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

While both adrenal glands are borderline large/prominent, the right adrenal gland appears similarly irregular in that it is heterogeneous and has somewhat indistinct margins with a small extension off the caudal pole. This could represent anatomic variation, hyperplasia, etc., but there is concern that this could also represent an early mass lesion with early extension/invasion. I suspect this is an incidental finding at this time, but close follow up is recommended, as this could become a very concerning lesion if it were to progress. Options moving forward would include close continued monitoring with ultrasound (recheck ultrasound in 2-3 weeks and possibly thereafter), or a contrast CT scan to get better detail of that region and additionally evaluate for other possible lesions affecting how this pet is feeling.

A blood pressure evaluation is recommended, looking for evidence of hypertension. If the patient is hypertensive, you could consider measuring catecholamine levels.

In the lab work provided, the albumin levels are slightly low. If this is persistent, consider a liver function test and evaluation of a urine protein to creatinine ratio, looking for possible sources of the low albumin (UPC needs to be done on an inactive sediment i.e., no current infection). If these are normal and the hypoalbuminemia persists, consider a GI panel to Texas A&M for a qualitative PLI, TLI, cobalamin and folate, looking for possible evidence of GI protein loss, and this could be a hint of a concurrent issue.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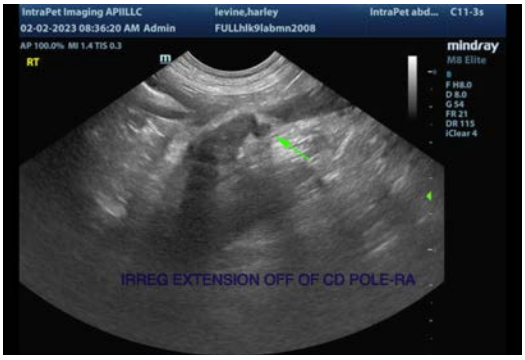

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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