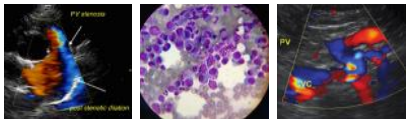
IMAGING PERFORMED BY

IntraPet.com



SonoPath
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DATE
10/24/22

PATIENT
Sadie Vonderschmidt

SPECIES
Canine

BREED
Labrador Retriever

SEX
Spayed Female

AGE
5/18/10

WEIGHT
75 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

HOSPITAL NAME
Banfield Towson

REFERRING VET
Dr. Lewis

INVOICE
17894

PRESENTING CLINICAL SIGNS

History: Pet presented for annual wellness exam. Elevated liver values on bloodwork. No concerns at home overall-pet has always had a sensitive stomach.
BCS: 5/9, Increased noise on panting/breathing-very consistent with Laryngeal paralysis
Generalized muscle wasting
Current Medications: Rimadyl 100 mg 1/2 tablet every 12 hours, Dasuquin Daily, Pepcid AC 20 mg daily, Cerenia 80 mg as needed

Lab Results: ALT 191, ALKP 1703. No other significant findings on CBC or chemistry

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

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.

Left kidney is normal is size (7.65 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.

Right kidney is normal is size (6.82 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.

Adrenal Glands

Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The left adrenal gland measures 3.0 cm long x 0.91 cm at the cranial pole and 1.21 cm at the caudal pole. The right adrenal gland measures 3.2 cm long x 1.27 cm at the cranial pole and 1.0 cm at the caudal pole. A hyperechoic slightly heterogenous nodule is noted in the cranial pole of the right adrenal gland.

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 (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. Visible vasculature and biliary tree appear normal without distension or congestion. A 1.7 cm round hypoechoic nodule is noted in the left medial liver and a 1.3 cm x 1.1 cm discreet hyperechoic nodule is noted in the left medial liver as well.

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 echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

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

- Hyperechoic hepatomegaly – This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible, but considered less likely.

  * Liver nodules – Differentials for a discrete liver nodule include primarily benign changes such as nodular hyperplasia, fibrosis of an old hematoma, granuloma, 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.

- Bilateral adrenomegaly – consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism vs stress or normal variant. Interpret in combination with clinical signs of hyperadrenocorticism.

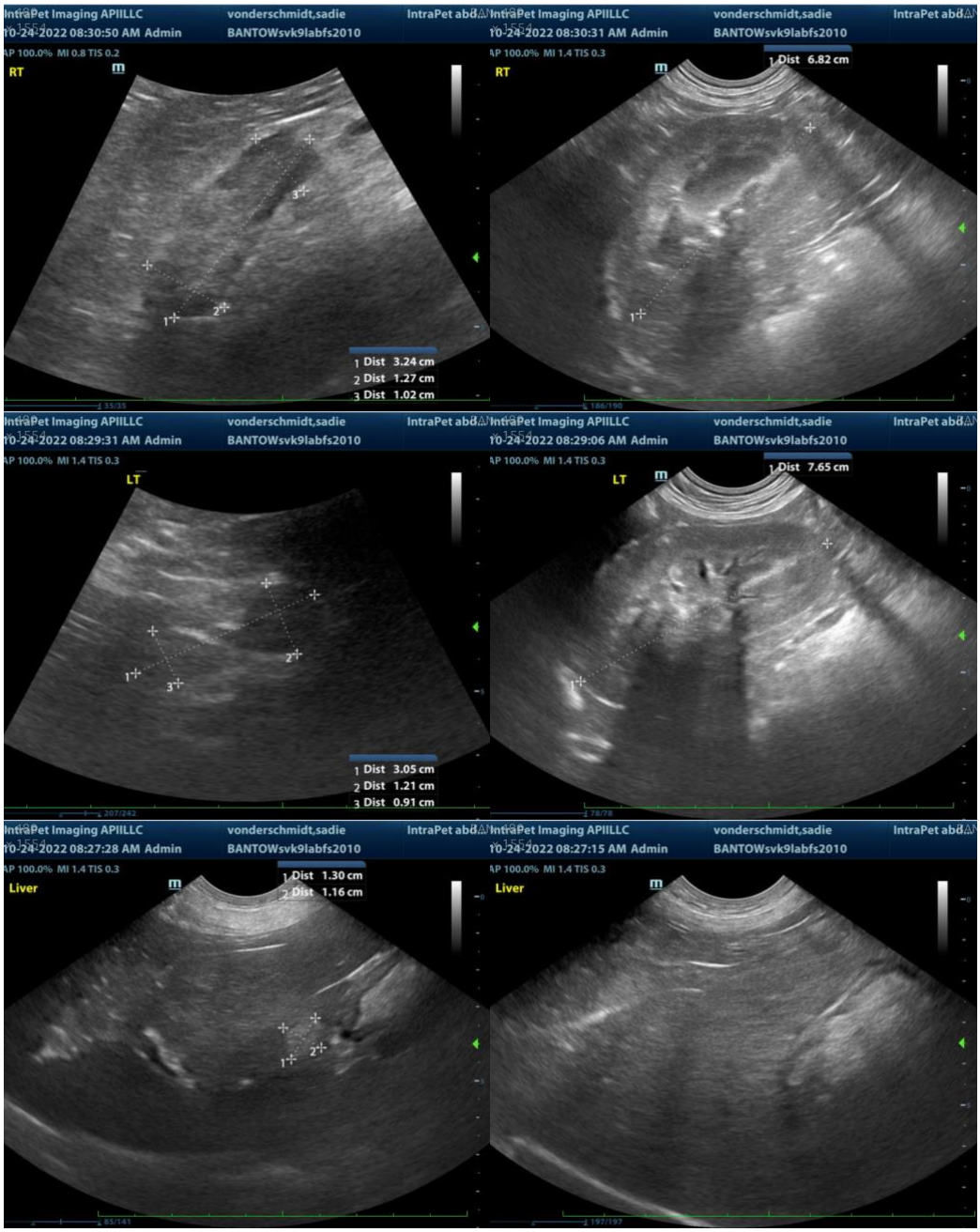
  * Hyperechoic adrenal nodule in the cranial pole of the right adrenal gland – Differentials include primary adrenal cortical adenoma or adenocarcinoma, pheochromocytoma, myelolipoma, adrenal hyperplasia secondary to pituitary disease or metastatic disease. Ultrasound alone cannot differentiate between 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.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

This patients reported liver enzyme increases may be secondary to hyperadrenocorticism given the adrenomegaly, etc., however, treatment of hyperadrenocorticism is not recommended and therefore, diagnosis is not necessary without concurrent clinical signs. Given the suspicion, however, if not recently

evaluated, urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended. A blood pressure is recommended if not recently evaluated.

While the liver nodule trends towards the benign, a fine needle aspirate of the liver, paying close attention to the hypoechoic liver nodule is recommended if patients coagulation status is appropriate.
Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.



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
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