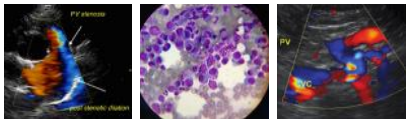
IMAGING PERFORMED BY

IntraPet.com



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DATE

2/6/23

PATIENT

Daisy Catenacci

SPECIES

Canine

BREED

Jack Russell Mix

SEX

Spayed Female

AGE

8/1/10

WEIGHT

13.4 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

HOSPITAL NAME

Everhart VH

REFERRING VET

Dr. Hays

INVOICE

21044

PRESENTING CLINICAL SIGNS

History: Patient presented to rDVM in Sept with reported pu/pd. Labs at that time showed ALP at 976 with mildly elevated BUN, normal Cr, elevated Mg, chol, tri. Kidney diet was recommended but pet did not eat well. Recheck labs in Nov showed stable BUN/Cr, ALP improved to 735, stable electrolytes. ACTH stim submitted (0.4 pre, 16.4 post) not

conclusive for cushings dz. Denamarin recommended with no change to clinical signs. Presented to EVH on 1/2 for second opinion, recheck labs submitted which now showed azotemia (81/2.8), elevated phos, mg, chol, tri. UA 1.009 with microalbumuria of 22.

Current Medications: None at this time.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Stephanie Warga RDCS,RVT.

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.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The left kidney measures 4.46 cm. The right kidney measures 4.45 cm. A small cortical cyst was noted in the caudal pole of the right kidney.

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 1.85 cm long x 0.76 cm at the cranial pole and 0.73 cm at the caudal pole. The right adrenal gland measures 1.9 cm long x 0.7 cm at the cranial pole and 0.49 cm at the caudal pole.

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). Multifocal well-demarcated hyperechoic homogenous nodules are noted. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with 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

Primary Findings

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

- Heterogenous Liver – These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.

- Mild gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

Secondary Findings

- Hyperechoic splenic nodules – most consistent with benign myelolipomas. Other differentials such as fibrosis or calcification caused by old hematomas or infarcts, chronic inflammation, granulomatous disease or metastatic disease cannot be ruled out, but are considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

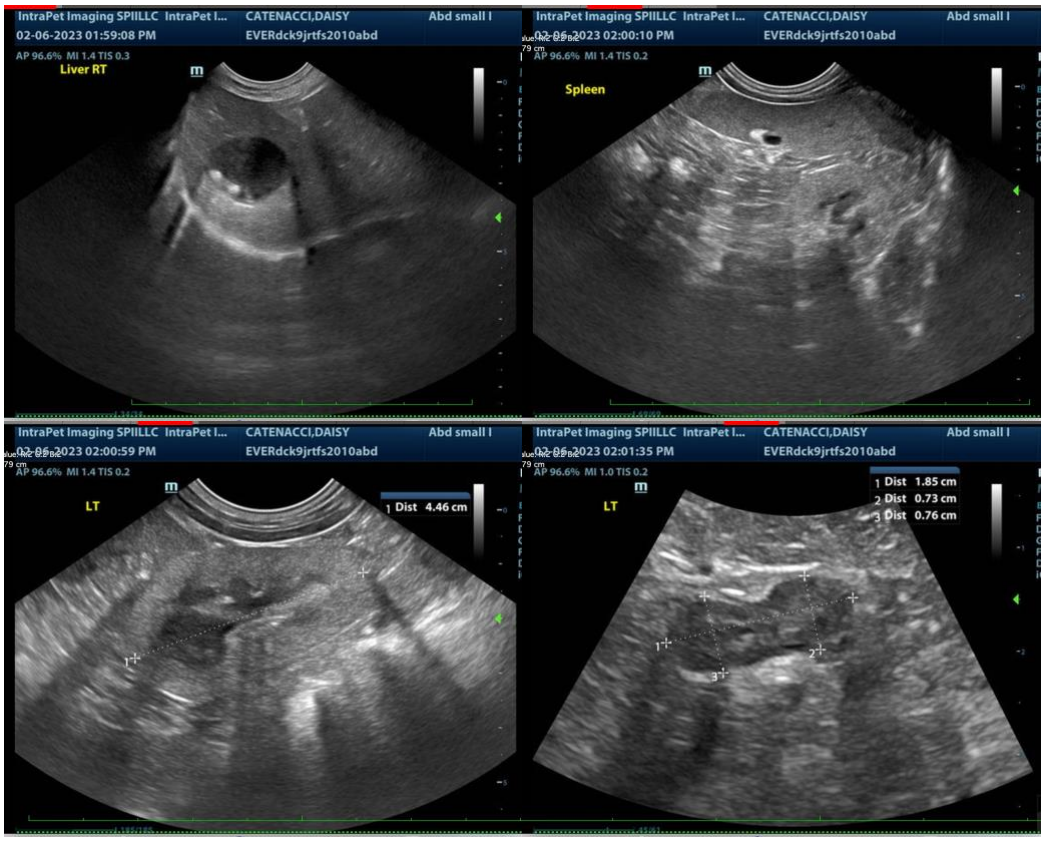
Given this patients reported kidney disease, combined with recently discovered proteinuria, a urine protein to creatinine ratio is recommended for further quantification of the proteinuria and to help direct

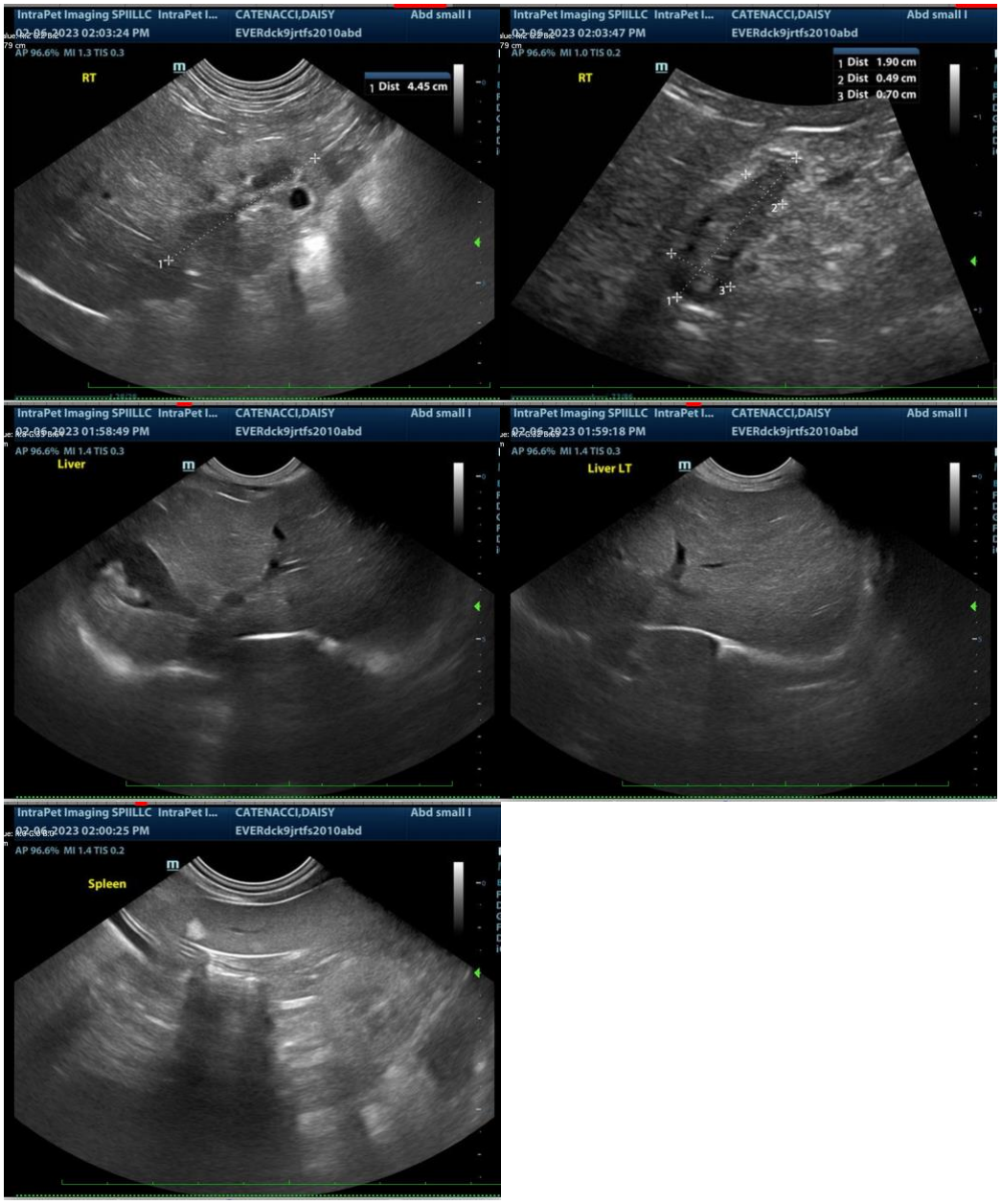
treatment.
Additionally, if not recently evaluated, blood pressure is recommended.

Testing for Leptospirosis is recommended.

Pending results, medical management of chronic kidney disease or potentially acute on chronic kidney disease is recommended, including potentially a different kidney friendly diet, since the original prescription wasn't well tolerated, fluid therapy (either in hospital or at home subcutaneous fluid therapy), management of proteinuria and/or hypertension if present, etc.

Additionally, given this patients reported increased ALP, combined with the appearance of the adrenal glands, liver, gallbladder, etc., early or emerging concurrent hyperadrenocorticism (pituitary dependent) is also considered possible. An ACTH stimulation test is not as sensitive as a low dose dexamethasone suppression test, so, diagnosis could potentially be confirmed using the low dose dexamethasone suppression test, however, further testing, treatment, etc., is not recommended for hyperadrenocorticism while managing a concurrent and potentially more serious problem, which in this case, appears to be the kidney disease. Therefore, any further evaluation of hyperadrenocorticism should be a future plan, depending on patient status, clinical signs, etc., at that time.





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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