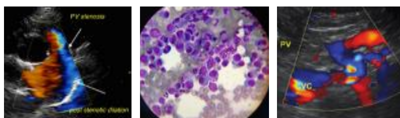


DATE
8/8/22

PATIENT
Maverick Melton

SPECIES
Canine

BREED
Labrador

SEX
Neutered Male

AGE
11/28/11

WEIGHT
85.7 Pounds

INTERPRETED BY
Beth Johnson, DVM
DACVIM

HOSPITAL NAME
Everhart VH

REFERRING VET
Dr. Hess

INVOICE
16791

PRESENTING CLINICAL SIGNS

History: Presented in March 2022 for PU/PD, lab work submitted and showed elevated liver values, low sp. gravity, recommended. AUS. O declined at the time.
Represented 8/6/22 with multiple skin problems - ulcerations on both sides of lips, bilateral swelling on elbows with ~3 cm open wound with deep pocketing and purulent discharge pooling within it. Alopecia with firm scaling along spine. RH digit 5 previously fallen off, nail starting to grow back, but toe inflamed as well.

Current Medications: started 8/6/22 Enrofloxacin 136 mg 1.5 tabs PO q 12 hrs., Carprofen 75 mg 1 tab PO q 12 hrs.
Lab Results: 3/29/22:
chem - ALP 284, ALT 147, Alb 2.4, T4 0.6, CBC - increased platelets, mild WBC increase UA - USG 1.006.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Patient sedated with Dexdomitor.
Stat Report: Not requested.
Imaging Performed By: Andi Parkinson, BS, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System
Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The area of the prostate is examined without evident pathology.

The kidneys are normal in size and echogenicity. The left kidney measures 8.56 cm. The right kidney measured 6.05 cm. Contour is distorted bilaterally by the presence of capsular indentations at hyperechoic wedge-shaped lesions consistent with chronic infarcts. A large amount of mineral, in the form of non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing and non-obstructive areas of mineralization/nephroliths is present bilaterally. In the left kidney, a normal 1:3 cortex to medulla ratio is noted with appropriate corticomedullary distinction maintained. However, in the right kidney, decreased corticomedullary distinction is noted, as is loss of normal architecture. There is no evidence of obstruction, pyelectasia, nodules or masses observed.

Adrenal Glands
The left adrenal gland is small (flattened contour). Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The left adrenal gland measures 2.0 cm long x 0.4 cm at the cranial pole and 0.38 cm at the caudal pole.

The right adrenal gland is enlarged (5.2 cm x 3.7 cm) with mild heterogenous parenchymal changes. Swollen capsular expansion is noted without evident capsular escape or vascular invasion.

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. No focal lesions are observed. 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. Mineral accumulation along the wall is present. 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 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

Primary Findings

- Right adrenal mass most consistent with a functional adenoma given the flat left adrenal gland. Adenocarcinoma, however, cannot be ruled out. Pheochromocytoma, hyperplasia, etc. are considered less likely given the flat left adrenal gland.

- 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.

- 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. There is mineral adhered to the inner wall.

Secondary Findings

- Bilateral nonobstructive dystrophic mineralization and nephrolithiasis with chronic infarcts noted and lack of normal architecture in the right kidney.
- Urinary bladder debris

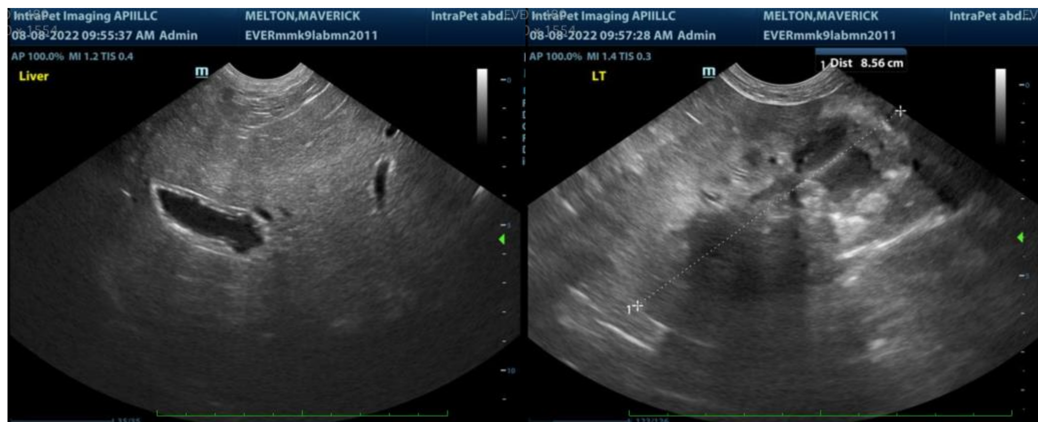
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

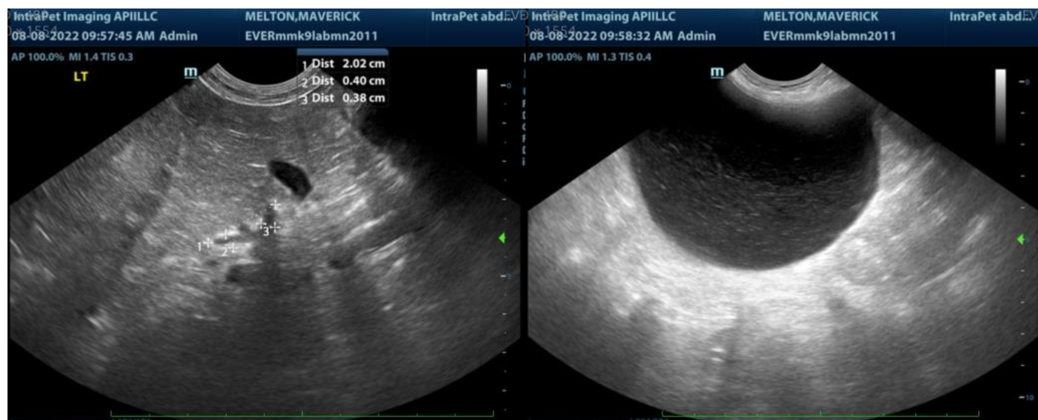
The described adrenal gland, liver and gallbladder changes are all suggestive of hyperadrenocorticism. Given the reported clinical signs of hyperadrenocorticism, etc., testing for hyperadrenocorticism with a LDDS test is warranted. If a LDDS test has been evaluated with a normal result, investigation of possible atypical hyperadrenocorticism with a full ACTH stimulation adrenal panel to the University of Tennessee could be considered.

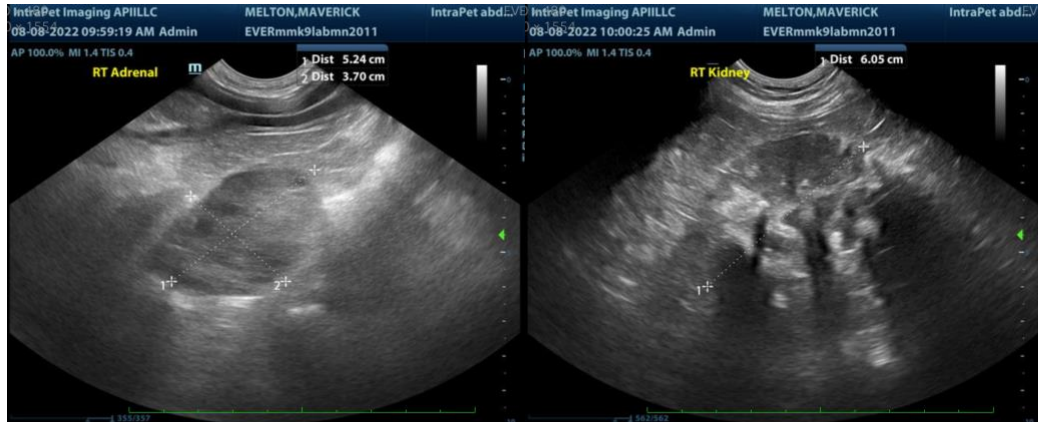
If not recently evaluated, blood pressure is recommended.

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

If hormone testing confirms the suspicion of a right adrenal gland tumor, an exploratory laparotomy for a planned right adrenalectomy is recommended as the treatment of choice. A presurgical planning abdominal CT scan is recommended prior to adrenalectomy.







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
Beth.Johnson@SonoPath.com