IMAGING PERFORMED BY

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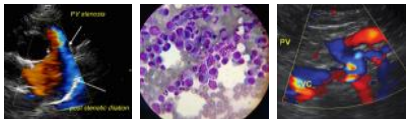

SonoPath
Clinical Sonography & Telecytology
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DATE
11/28/22

PATIENT
Buster Cavin Clayton

SPECIES
Canine

BREED
Boston Terrier

SEX
Intact Male

AGE
4/25/11

WEIGHT
29.5 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

HOSPITAL NAME
Bayside AMC

REFERRING VET
Dr. DeLozier

INVOICE
18860

PRESENTING CLINICAL SIGNS

History: Seizures started a few weeks ago (3 total), blood work showed anemia, rads showed markedly enlarged prostate and glassy/possible mass opacity/decreased detail in R cranial abdomen.

Current Medications: None listed.
Lab Results: See attached.
Radiographs: markedly enlarged prostate and glassy/possible mass opacity/decreased detail in R cranial abdomen.
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. A smooth echogenic density along the dorsal wall in the area of the ureteral papilla is noted, differentials for which could include a prominent ureteral papilla; however, a smooth polyp cannot be definitively ruled out.

Prostate is symmetrically enlarged with smooth margins that are well differentiated from surrounding tissue. Normal bilobed shape is maintained. Parenchyma is heterogenous with scattered hyperechoic foci present. No mineral or cysts are noted. The prostate measures 3.25 cm in width.

The left kidney is 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 infarcts observed. The left kidney measures 5.17 cm. Nonobstructive nephrolithiasis is noted in the left kidney. Mild pyelectasia is noted.

The right kidney is 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 infarcts observed. The right kidney measures 4.9 cm. Nonobstructive nephrolithiasis is noted in the right kidney. Pyelectasia, measuring 0.6 cm is noted in the transverse view.

Adrenal Glands

Adrenal glands are largely normal in size, shape and contour. Some parenchymal heterogenicity is present without concerning capsular distortion. These changes are likely normal for this age but should be monitored if there is any suspicion of adrenal disease. The left adrenal gland measures 2.08 cm long x 0.91 cm at cranial pole and 0.7 cm at caudal pole. The right adrenal gland measures 2.4 cm long x 1.06 cm at cranial pole and 0.61 cm at caudal pole. A hyperechoic nodule is noted in the cranial pole of the right adrenal gland. Nodule does not disrupt normal shape and/or architecture.

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 normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. 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. 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 stomach is moderately distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. However, given the reported history of fasting, delayed gastric emptying could be considered. Soft (cloth) fluid absorbing foreign material is considered less likely but cannot be definitively ruled out. If clinical signs are consistent (vomiting, etc.), recommendations include supportive medical care, 24 hours fasting and re-image.

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 area of the pancreas contains irregular hyperechoic pancreatic remodeling.

Free Abdomen
There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

Both testicles are observed without evident pathology.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Urinary bladder wall echogenic density is most consistent with a prominent ureteral papilla, however, a smooth polyp cannot be definitively ruled out and this finding should be monitored.

Secondary Findings

- 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.

- Hyperechoic pancreas – This finding is suggestive of pancreatic fibrosis, possibly secondary to chronic pancreatitis. A TLI is recommended to rule out exocrine pancreatic insufficiency (EPI), especially if clinical signs (weight loss, diarrhea, etc.) are present.

- Age-related adrenal gland changes with a hyperechoic adrenal nodule in the cranial pole of the right adrenal gland – Differentials for the hyperechoic adrenal nodule in the right adrenal gland 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.

- Benign prostatic hyperplasia- Prostatic findings are most consistent with Benign Prostatic Hyperplasia (BPH) and hyperechoic foci consistent with increased vascularity and fibrosis often associated with BPH. Active prostatitis cannot be ruled out. Infiltrative neoplasia cannot be ruled out but is considered less likely.

- Age-related kidney changes with nonobstructive nephrolithiasis and pyelectasia bilaterally.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

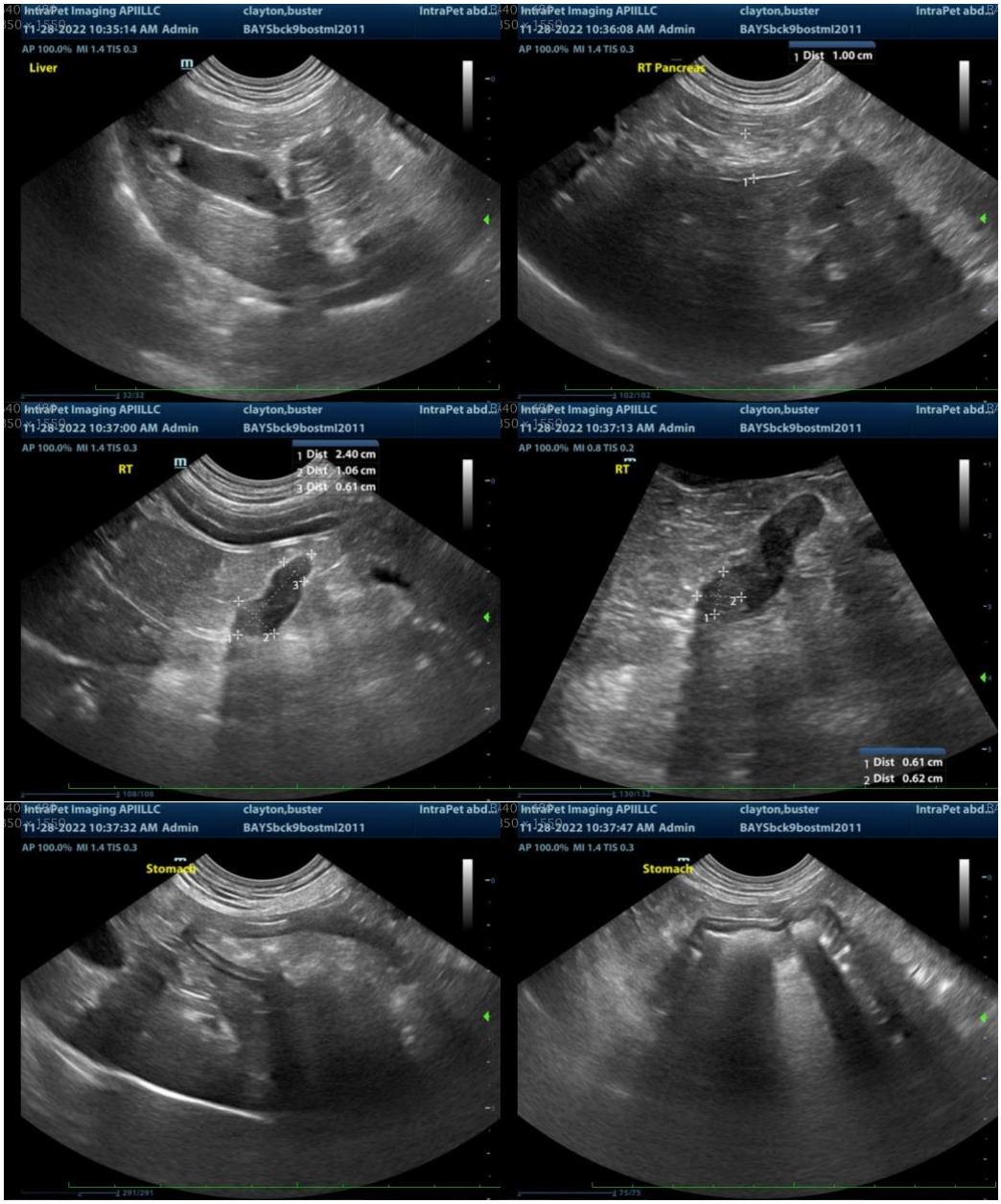
There is no evidence of an abdominal mass visible in these images at this time.

The adrenal gland changes, combined with this patients reported mild proteinuria could be consistent with hyperadrenocorticism. If clinical signs of hyperadrenocorticism are present in the form of polyuria/polydipsia/polyphagia, etc., then testing could be considered in the form of a low dose dexamethasone suppression test. Without clinical signs, therapy and therefore testing of hyperadrenocorticism is not indicated. However, given this patients reported seizures, a blood pressure evaluation is recommended if not recently evaluated, as is management of hypertension and proteinuria if significant, i.e., <2 (if present).

A urine culture may also be indicated if not recently evaluated given this patients mild bilateral pyelectasia.

Additionally, if gastrointestinal signs, including weight loss, diarrhea, etc. are present, further evaluation of the mildly hyperechoic pancreas could be considered in the form of a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

Ultimately, however, the majority of the pathology described above is likely age-related, incidental and/or mild and unrelated to this patients seizures and advanced imaging such as an MRI is likely indicated for further evaluation of the seizures.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Liver
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RT Pancreas
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3 Dist 0.61 cm
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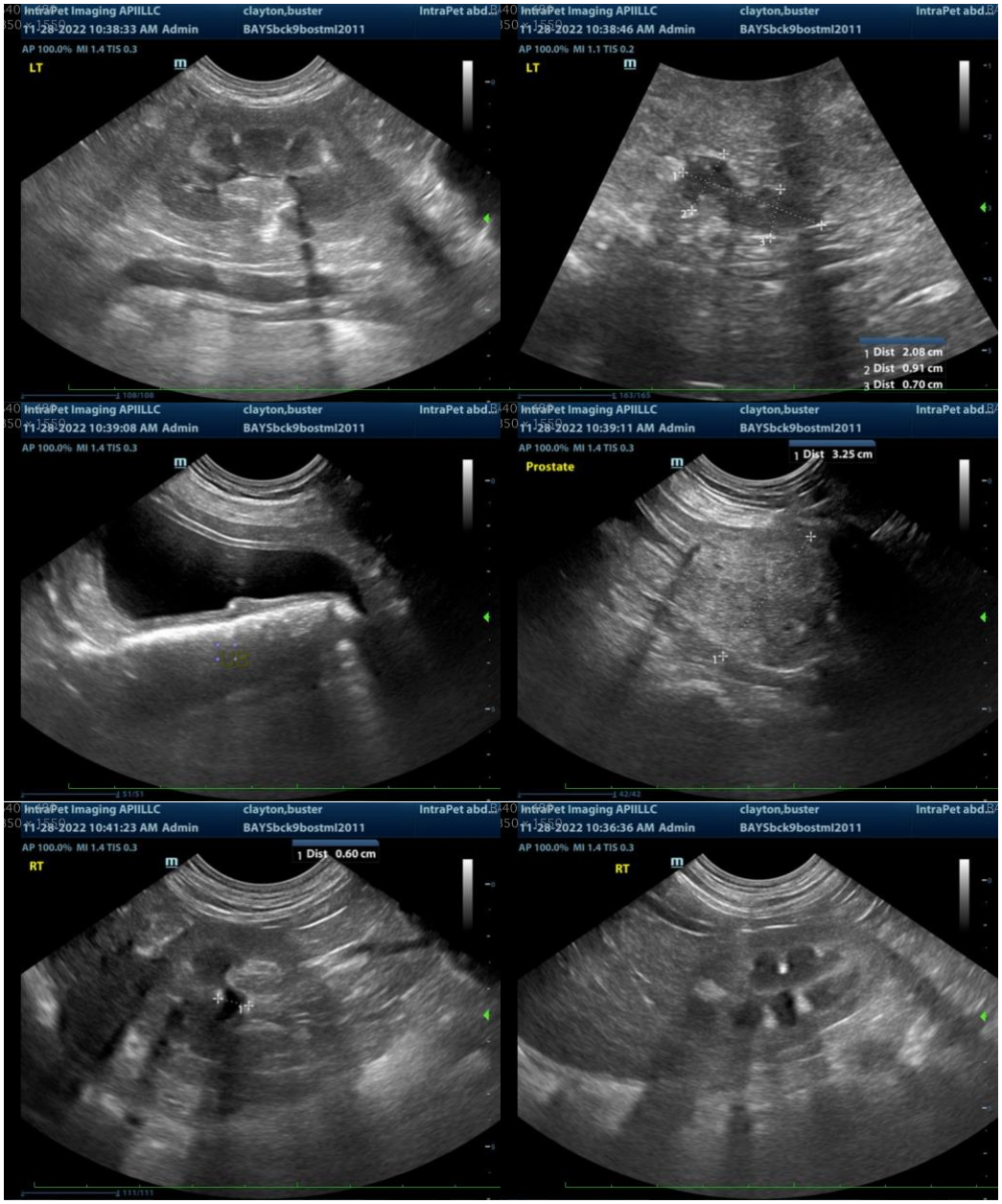
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LT
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Prostate
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IntraPet abd.
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RT
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clayton,buster
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AP 100.0% MI 1.4 TIS 0.3
RT

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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