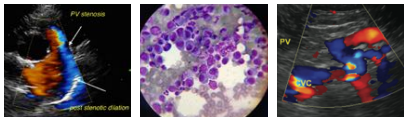
IMAGING PERFORMED BY

IntraPet.com



SonoPath
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DATE

10/5/22

PATIENT

Philip Hayes

SPECIES

Canine

BREED

English Pointer

SEX

Neutered male

AGE

10/2/12

WEIGHT

73.8 lbs

INTERPRETED BY

Beth Johnson, DVM DACVIM

HOSPITAL NAME

Taylorsville VC

REFERRING VET

Dr. Earp

INVOICE

39938

PRESENTING CLINICAL SIGNS

P came in on Saturday unable to urinate, expressed 540mL of urine. P was slightly better on Monday but still only dribbling urine, P came in for expression (520mL of urine). Tuesday no change came in for expression (no qty given in notes), very large bladder noted.
Current Medications: Enrofloxacin 68 mg- 1 chew BID, Prazosin 5 mg- 1 capsule BID, increased to 2 capsules BID on Monday, Carprofen 75 mg- 1 tablet BID
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Rachel Brilhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The prostate is irregularly enlarged and measured 4.12 cm wide with a heterogenous parenchyma. Multi-focal mineralization and poor demarcation from surrounding tissue was noted. The prostatic mass encroaches on the neck and into the trigone of the urinary bladder where tissue is similarly heterogenous, irregular and mineralized. The remainder of the urinary bladder appears normal, but is over distended.

Left kidney is normal is size (6.42 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted. There is no evidence of pyelectasia or infarcts observed.

Right kidney is normal is size (6.43 cm),shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted. There is no evidence of pyelectasia 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 measured 2.2 cm long, 0.73 cm at the caudal pole and 1.0 cm at the cranial pole. The right adrenal gland measured 2.1 cm long, 0.97 cm at the cranial pole, 0.9 cm at the caudal pole.

Spleen

Spleen is generally normal in size and shape with a smooth capsular contour. Parenchyma is diffusely nodular in appearance characterized by small discrete hypoechoic nodules. 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.
consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) 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 free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- **Prostatic mass** encroaching into the urinary bladder trigone, most concerning for infiltrative neoplasia such as carcinoma versus other. Benign inflammatory disease/prostatitis cannot be ruled out, but is considered less likely given the appearance.

- **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.

- **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.

- **Splenic micronodular hyperplasia pattern –** This nodular change is often associated with benign aging nodular hyperplasia. Infiltrative neoplasia, however, including both early hemangiosarcoma as well as round cell neoplasia cannot be ruled out.

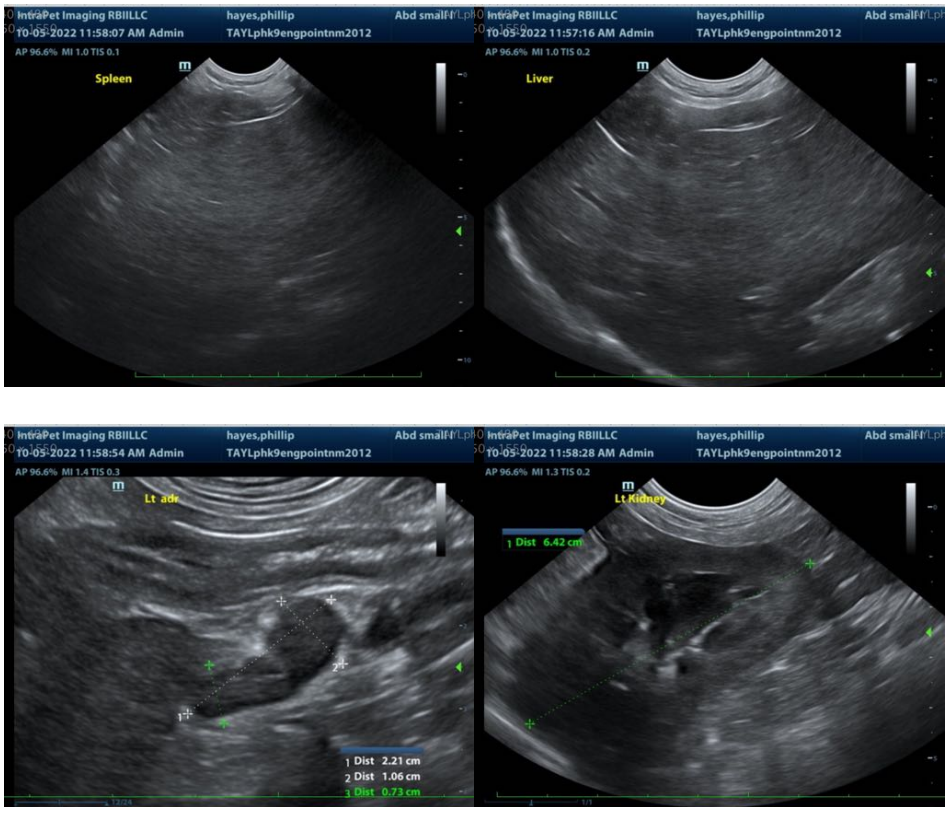
Secondary Findings

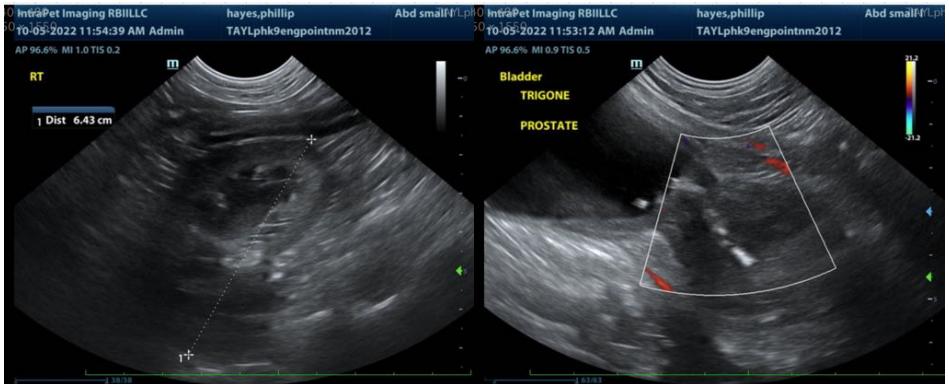
- **Non-obstructive dystrophic mineralization bilaterally in the kidneys.**

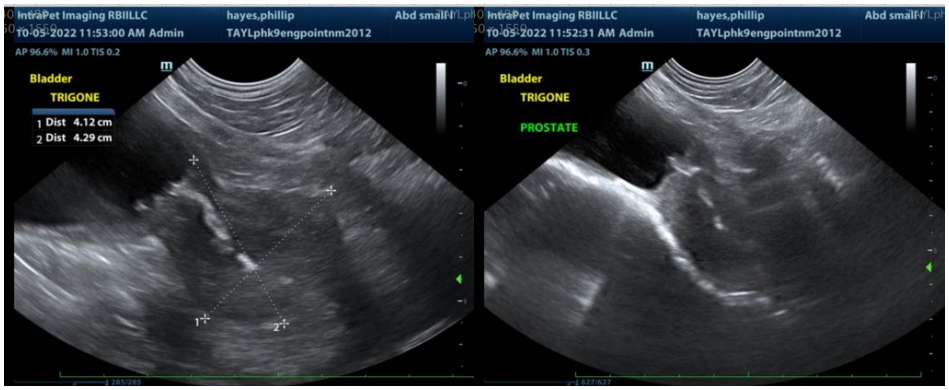
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Urinalysis and urine culture, if indicated based on urinalysis results, are recommended. Submission of urine to look for BRAF gene mutation, which is associated with urinary bladder cancer, could be considered. Other diagnostic options include traumatic catheterization, fine needle aspirate (with small risk of tumor seeding/trailing) or cystoscopy for further sampling.

The described adrenal gland, liver and gallbladder changes are all suggestive of hyperadrenocorticism; however, hyperadrenocorticism should not be diagnosed in the face of concurrent potentially more serious illness. Therefore, testing is not recommended until addressing any secondary bladder infections, prostatic neoplasia, etc. At that point, upon patient stabilization if clinical signs of hyperadrenocorticism are present in affecting quality of life testing can be considered in the form of low-dose Dexamethasone suppression test. Blood pressure measurement is recommended if not recently evaluated. In the meantime, empirical broad-spectrum antibiotics or ideally antibiotics based on culture and sensitivity results if possible as well as anti-inflammatories may help alleviate clinical signs while awaiting pending diagnostic results.







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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