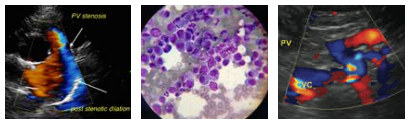
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE

1/24/2022

PATIENT

Prince Johns

SPECIES

Canine

BREED

Pomeranian

SEX

Male, neutered

AGE

5/12/2009

WEIGHT

10 lbs.

INTERPRETED BY

Beth Johnson, DVM DACVIM

HOSPITAL NAME

Alpha VC

REFERRING VET

Dr. Cox

INVOICE

95477

PRESENTING CLINICAL SIGNS

History: bp very elevated - having u/s to investigate underlying cause.
Lab Results: indirect bp 12/17/21 290 mm hg; increased SAP; Liver disease.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Declined.
Stat Report: Not requested.
Imaging Performed By: Rachel Brilhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is moderately distended with anechoic contents. It has normal uniform wall thickness (< 0.2 cm). No masses are observed. Calculi exhibiting distal acoustic shadowing are present along the gravity dependent inner wall of the lumen urinary bladder. The calculi measured 0.6-0.9 cm in diameter and there is a calculi entering the proximal urethra, which measures 0.5 cm. No obstruction was noted.

The prostate is normal for a neutered dog.

Cranial pole of the left kidney is normal in size (4.45 cm), shape and echogenicity. It has smooth peripheral margination and appropriate corticomedullary distinction. The caudal pole of the kidney is not well visualized due to the presence of a 2.6 cm round, well-defined, anechoic structure surrounded by a thin, echogenic wall. The structure contains echogenic septations and debris. The structure is most consistent with a complex renal cortical cyst. There is no pyelectasia noted. Non-obstructive areas of mineralization/nephroliths are noted, primarily in the diverticular of the kidney.

Right kidney is normal in size (4.11 cm), shape and echogenicity. It has smooth peripheral margination and appropriate corticomedullary distinction. There is no pyelectasia noted. Non-obstructive areas of mineralization/nephroliths are noted, primarily in the diverticular of the kidney.

Adrenal Glands

Left adrenal gland is at the upper limit of normal in size (1.7 cm long, 0.54 cm at cranial pole and 0.6 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable.

Right adrenal gland is at the upper limit of normal in size (1.72 cm long, 0.73 cm at cranial pole and 0.67 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable.

Spleen

Spleen is subjectively normal in size with normal smooth margins. Parenchyma is normal in echogenicity and echotexture. A 0.5 cm, round, hypoechoic nodule was noted in the middle of the spleen. This nodule did not cause any capsular disruption. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged with rounded margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature appears normal. GB is moderately distended with anechoic bile and gravity dependent echogenic sediment. There is a 0.5 cm stone with shadow 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 gastric wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm). The stomach is empty.

The small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). There are no luminal contents noted within small intestines.

Colon is normal in wall thickness (< 0.2 cm) and layering.

Pancreas
Pancreas has normal homogenous echotexture and is normal in echogenicity and smooth margination. There is no evidence of peripancreatic inflammation.

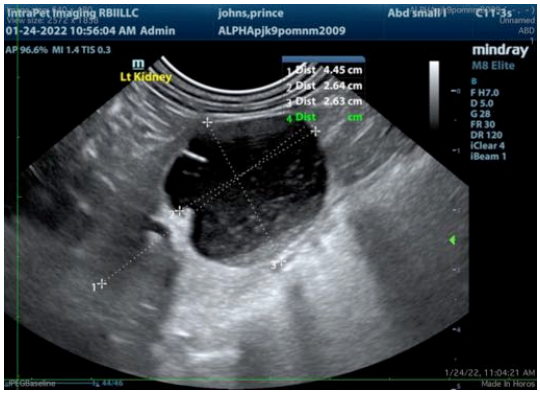
Free Abdomen
Lymph nodes are normal with no observed enlargement.

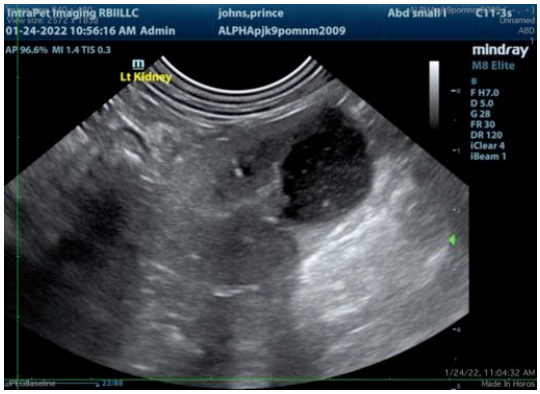
ULTRASONOGRAPHIC FINDINGS
PRIMARY FINDINGS:

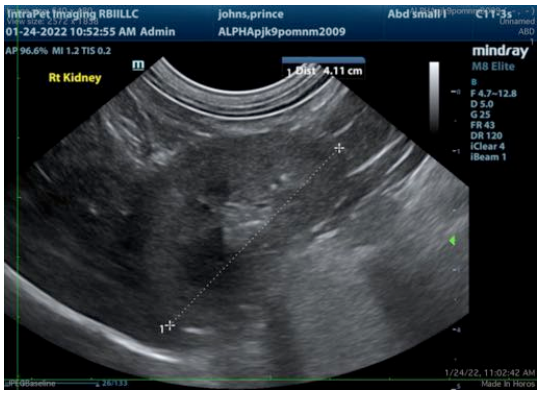
- Urinary bladder cystic calculi and Trigone/Proximal urethra calculi without evidence of obstruction.
- Heterogenous liver – Differentials for hepatic changes include both benign steroid (vacuolar) hepatopathy or extramedullary hematopoiesis as well as infiltrative round cell or metastatic neoplasia.
- Canine 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.
- Mild Bilateral adrenomegaly – consistent with adrenal hyperplasia secondary to pituitary depending hyperadrenocorticism vs normal variant.
- Hypoechoic splenic nodule. This is most consistent with extramedullary hematopoiesis or other benign change.

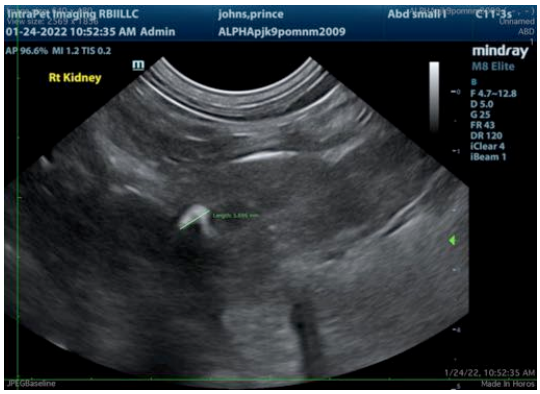
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS
Recommendations for this patient given the reported hypertension as well as the mild adrenal changes and urinary system changes include a low-dose Dexamethasone suppression test if not already evaluated. If the test is diagnostic for hyperadrenocorticism then this ultrasound is most consistent with pituitary dependent hyperadrenocorticism. If not recently evaluated a serum chemistry panel and electrolytes as well as urinalysis is recommended to further assess kidney function. A urine culture is also recommended if indicated based on urinalysis. If urine sediment is quiet, but there is protein present in the urine then a urine protein to creatinine ratio is highly recommended given the concurrent hypertension. Although this is most consistent with a benign complex cyst, a FNA of the cyst on the caudal pole of the left kidney for cytology and culture is recommended. The liver changes are consistent with possible hyperadrenocorticism. However, a FNA of the liver is recommended if the patient's coagulation status is appropriate, especially if hyperadrenocorticism is not diagnosed. Finally it is possible that the hypertension is secondary to discomfort associated with the passing of kidney and/or bladder stones. Surgery to remove the stones is recommended especially if any lower urinary tract signs or straining to urinate are present, unless this patient is diagnosed with a urinary

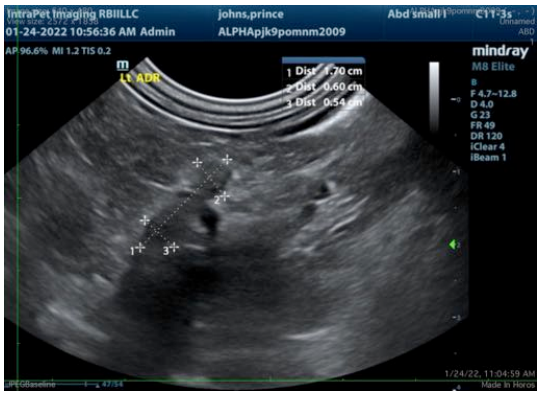
tract infection, in which case management of the urinary tract infection and monitoring for possible stone dissolution is recommended prior to surgery. Pain management is recommended if indicated based on physical exam.

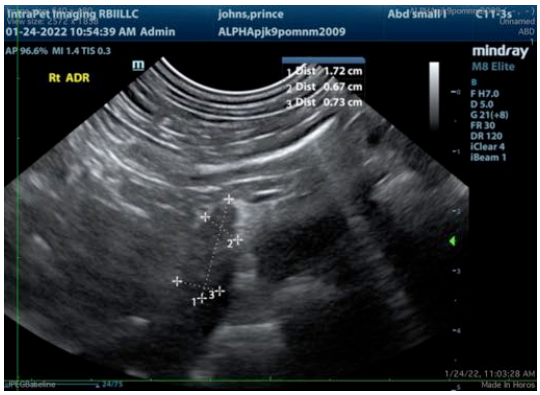


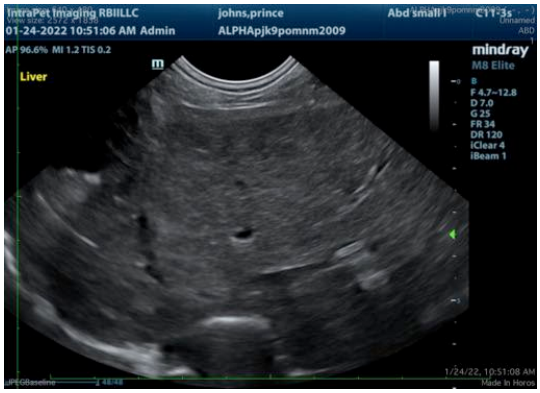


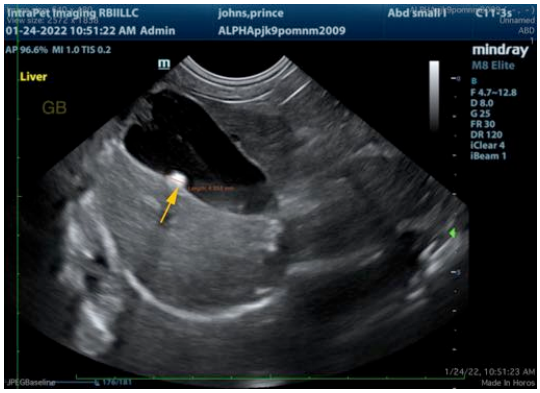


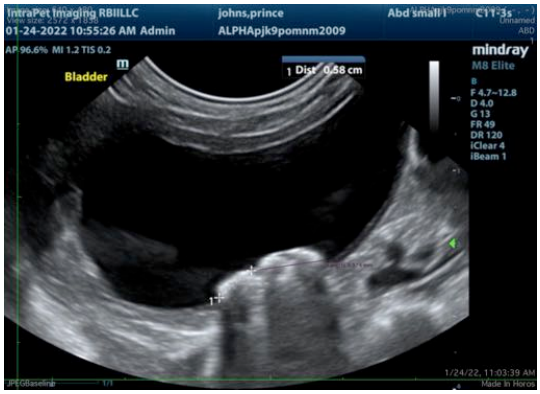


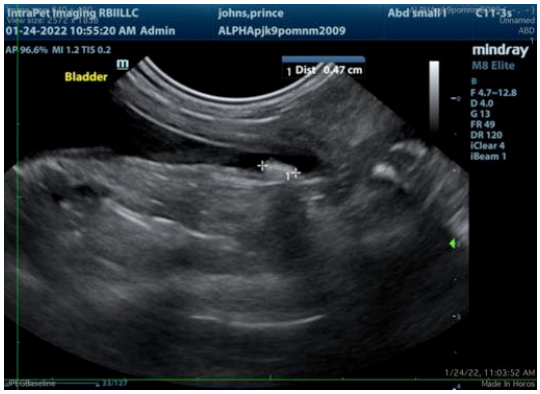


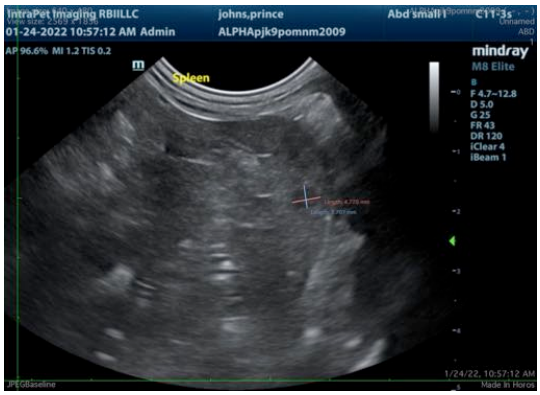












The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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