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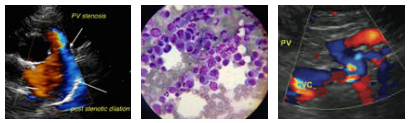

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DATE
2/11/22

PATIENT
Garth Morris

SPECIES
Canine

BREED
Labrador Retriever

SEX
Intact male

AGE
1/23/14

WEIGHT
94 lbs

INTERPRETED BY
Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

HOSPITAL NAME
Greenbrier VC

REFERRING VET
Dr. Streett

INVOICE
95999

PRESENTING CLINICAL SIGNS

History: hx of acute onset restless, panting. Presented here with abdominal pain. Otherwise, PE unremarkable. Azotemia, Prostatomegaly. Abdominal pain--r/o causes of abdominal pain, check urinary tract.
Current Medications: Doxycycline 300mg BID started on 2/10.
Lab Results: CBC WNL; Chem--BUN=30; Creat=2.6, amylase mildly elevated. u/a--SG=1.015, hematuria--think likely secondary to cysto; proteinuria 3+, 4dx=neg, urine culture pending.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By:

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The prostate is large and hyperechoic measuring 3.9 cm in height on the sagittal view with smooth external margins. No discrete focal lesions are present. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (7.44 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Mild pyelectasia was noted and measured 0.2 cm. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (7.52 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Mild pyelectasia was noted and measured 0.26 cm. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.73 cm at the caudal pole It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is large in size. The cranial pole measured 3.14 cm and the caudal pole measured 1.92 cm and the length is 3.35 cm. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. The adrenal gland is abnormal as the cranial pole is enlarged and irregular with surrounding, inflamed tissue. While direct vascular invasion is not visualized there is at least compression of the local vasculature with possible invasion.

Spleen

The spleen is subjectively large in size. The spleen echotexture is heterogenous and mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver
The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed. The gallbladder lumen is moderately distended. The wall of the gallbladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal
The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas
The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen
Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of increased echogenicity around the caudal abdominal mass.

Other
There is a large, hypoechoic, somewhat loculated appearing mass in the right caudal abdomen measuring 9.1 x 4.32 cm. The margins are irregular and somewhat poorly defined cranially. A clear extension of this mass effect from the right adrenal mass or the right kidney cannot be observed, but may be possible.

Both testicles are visualized and appear within normal limits.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Large, hyperechoic prostate. Prostatic changes are most consistent with benign prostatic hyperplasia. Other differentials include bacterial prostatitis and prostatic neoplasia. However, given the lack of lower urinary tract symptoms, these differentials are considered less likely in this patient.

- Decreased corticomedullary distinction in both kidneys with mild pyelectasia. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease

or interstitial nephrosis. Pyelectasia in both kidneys could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

- Large, mottled spleen. The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.

- Heterogenous liver. The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. Right adrenal mass. This mass is somewhat irregular and is concerning for possible invasion or extension into the caudal abdominal mass. Right adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.

- Large, caudal right abdominal mass. This mass effect is hypoechoic and irregular. It could represent a mass on the body wall, etc. or it could represent an extension of the right adrenal mass.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

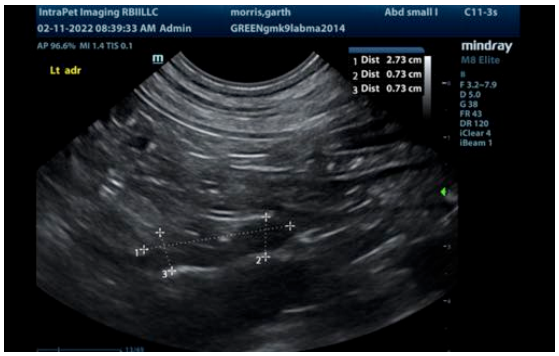
I suspect the caudal abdominal mass is the source of acute pain noted in the history. The prostate could also be a factor, but visually appears relatively quiet. The pending urinalysis and culture will be helpful. I am concerned that the caudal abdominal mass could represent an extension from the right adrenal mass.

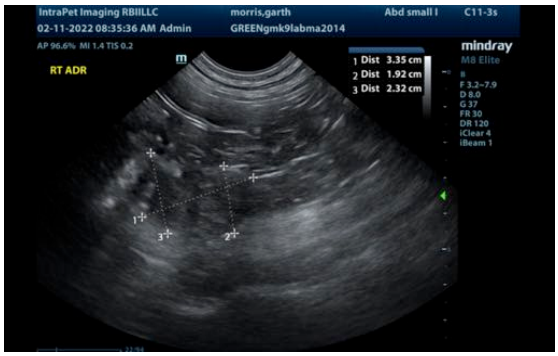
- Recommend three view thoracic radiographs to look for evidence of metastasis.

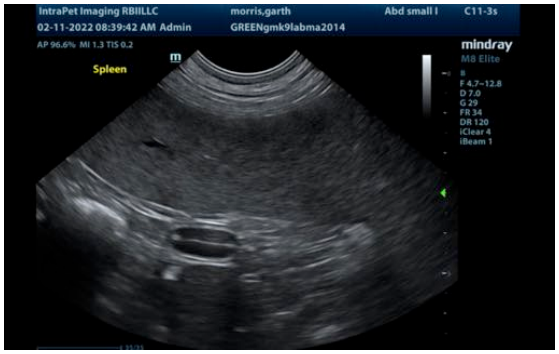
- Recommend blood pressure evaluation.

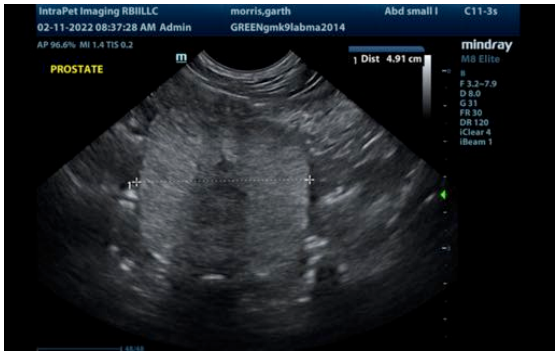
- Recommend abdominal CT scan to further evaluate the right adrenal gland and mass effect to determine if surgical options exist.

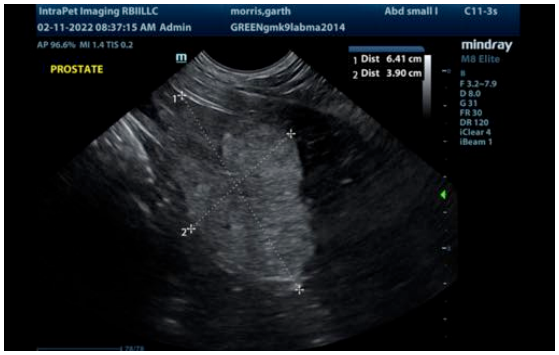
- A FNA of the caudal abdominal mass can be considered as long as coagulation parameters are normal.

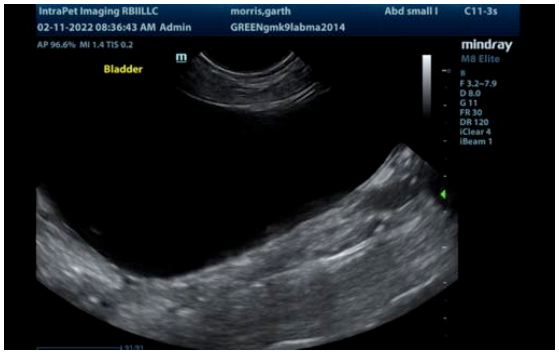


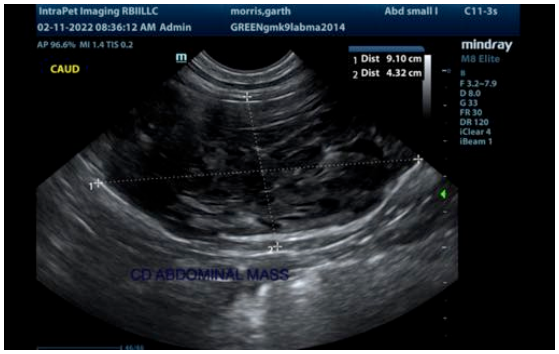


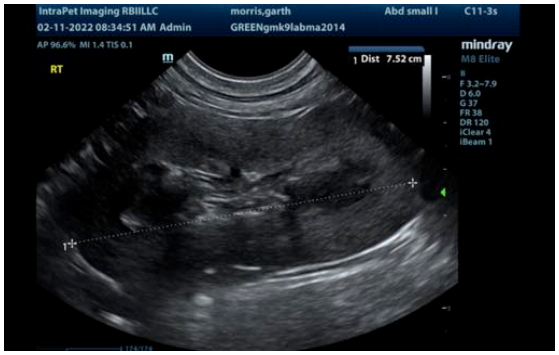


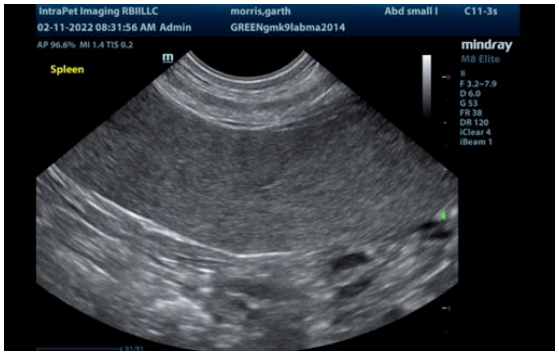












The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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