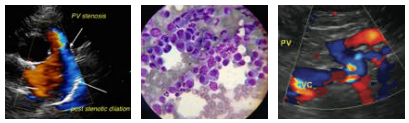
IMAGING PERFORMED BY

IntraPet.com



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DATE
3/22/22

PATIENT
Dublin Murphy

SPECIES
Canine

BREED
Labrador Retirever

SEX
Neutered male

AGE
4/2/09

WEIGHT
96 lbs

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

HOSPITAL NAME
Hickory VH

REFERRING VET
Dr. McCourt

INVOICE
97058

PRESENTING CLINICAL SIGNS

Presented 3/7/2022 for UTI signs (accidents in house). history of laryngeal paralysis and peripheral neuropathy. UA dilute, occasional RBX and blood. treated with amoxicillin 11mg/kg, clinical signs did not improve. repeat UA continued microscopic hematuria, switched to marboflaxacin. No improvement within 3-4 days, p decreased appetite and loose stool. full CBC/chem and lateral rad NSF. Added cerenia, metronidazole, proviable, and bland diet to marboflaxacin.
Current Medications: Zeniquin 150mg SID 1.5 weeks, Metronidazole 750mg BID x 5 days, Cerenia 90mg SID.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Stephanie Pearce RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The bladder wall appears thickened, particularly in the area of the trigone. There is mild mucosal irregularity and wall thickening in the area of the trigone measures at approximately 1.42 cm. This thickening does not create a discrete mass effect, but the thickening appears to extend into the proximal urethra and to the prostate. No calculi are observed.

The prostate appears large at 2.99 x 3.58 cm. It is relatively regular in shape with smooth external margins. The parenchyma is heterogenous with some focal, pinpoint mineralization. There is no evidence of intraluminal irregularity within the prostatic urethra, but the pre prostatic urethra appears somewhat thickened.

The left kidney is large and rounded in shape and measured at (8.22 cm) with severe pyelectasia at 1.08 cm. Hydroureter is present with the left ureter measuring 1.18 cm in diameter. No stones or mass effects are visualized.

The right kidney is large and rounded in shape (8.12 cm) with severe pyelectasia at 1.06 cm. Hydroureter is present with the proximal ureter measuring at 0.7 cm in diameter. The more distal ureter measured at 0.38 cm. No calculi or mass effects are visualized.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.84 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 normal in size measuring 0.58 cm at the caudal pole It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and 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 homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. There is a

small, hypoechoic lesion measuring 1.49 x 2.11 cm visualized. It is most consistent with a hypoechoic nodule or cystic lesion. 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 is moderately dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering 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 hyperechoic in the region of the prostate.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Bilateral hydronephrosis and hydroureter. The findings are suggestive of a partial urinary obstruction at the level of the trigone/prostate. Pyelonephritis cannot be excluded as a differential as well.

- Thickened urinary bladder wall. The bladder wall appears thickened particularly in the region of the trigone. No focal mass effect is visualized. There is concern for possible ureteral obstruction.

- Large prostate with pinpoint mineralization. Correlate the findings with the age of neutering. If the patient was neutered prior to puberty then there is concern for underlying prostatic neoplasia.

- Hypoechoic liver nodule. This lesion could represent a hypoechoic nodule or even a cystic lesion. It is small and deep in the liver making sampling difficult. I recommend to continue monitoring.

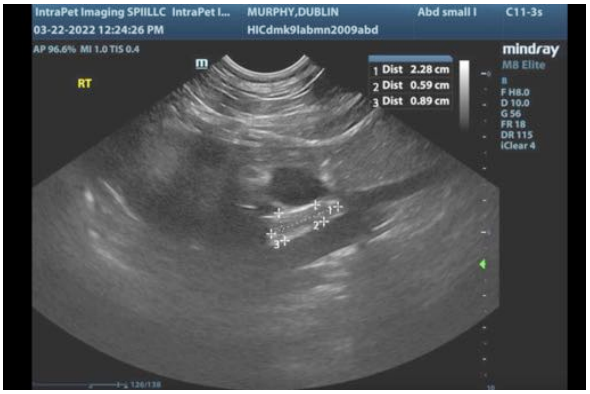
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

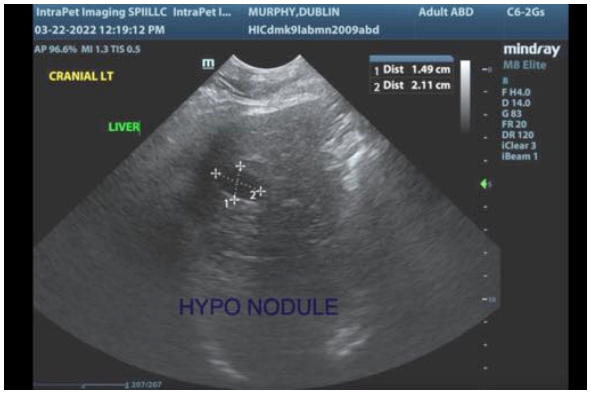
There is bilateral hydronephrosis and hydroureter present and concern for a partial distal urinary obstruction. The urinary bladder wall is severely thickened in the region of the trigone and the ureteral

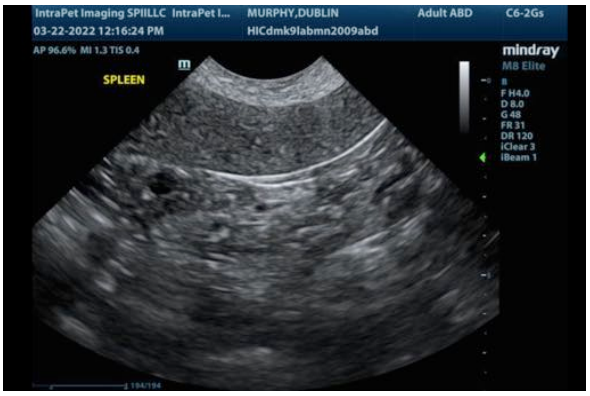
papilla. Additionally the prostate is large and mineralized.

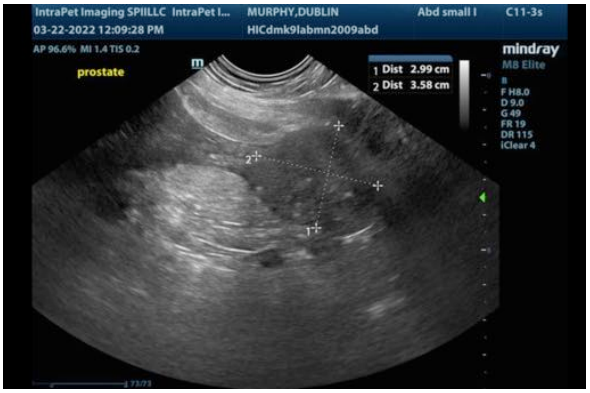
- Recommend urinalysis and culture
- Recommend FNA of the prostate
- Consider BRAF mutation testing. If this test is positive it would increase the likelihood of transitional cell carcinoma. If the test is negative additional diagnostics would be necessary
- If cytology is non-diagnostic consider a traumatic catheterization at the level of the prostate/trigone
- Recommend three view thoracic radiographs.

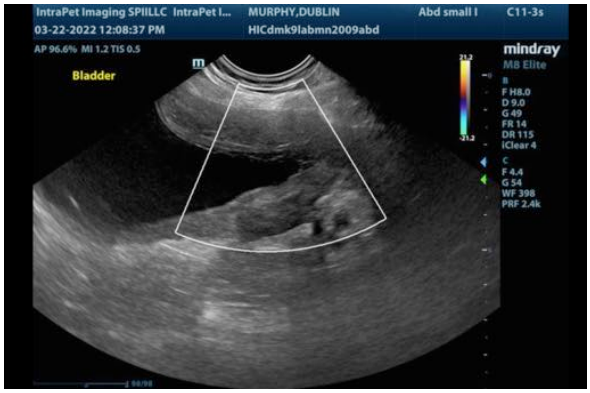
Although I am highly concerned about an underlying neoplastic process there is not a focal mass effect in the bladder and if the patient was neutered late in life the enlarged prostate could be secondary to chronic prostatic/BPH.

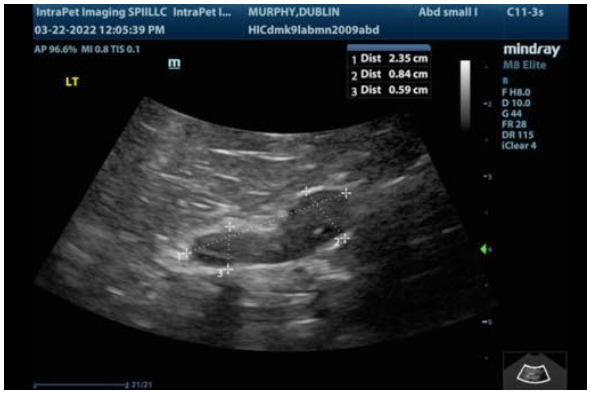












The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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kathleen.sennello@sonopath.com