IMAGING PERFORMED BY

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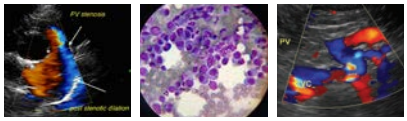

SonoPath

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DATE

9/2/21

PATIENT

Halton Meister

SPECIES

Canine

BREED

Yorkie

SEX

Neutered Male

AGE

2003

WEIGHT

5.22 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Eastern AH

REFERRING VET

Dr. Sole

INVOICE

25161

PRESENTING CLINICAL SIGNS

PUPD, mass noted on u/s for cysto. Sample collected through u-cath-- epithelial cells seen.

Current Medications: Deracoxib 6mg SID and Marbofloxacin 12.5mg SID started 8/30
Lab Results: BW 8/30 to antech. U/A- bacterial presence, epithelial presence, culture pending
Date of Previous IntraPet Ultrasound: No previous
Sedation: not needed
Stat Report: not requested

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is minimally distended with anechoic urine. The Bladder wall lagely appears normal, but has a slightly irregular mucosa and progressively thickens as it approaches the trigonal region, creating a mass effect in that area measuring approximately 0.83 cm x 1.57 cm. Unfortunately, visualization is greatly impaired by lack of urine distention, as the bladder is folding upon itself in this are as well. This area impinges on the proximal urethral, and visualization of the prostate is difficult, but there is the possibility for proximal urethral thickening. Recommend reevaluation with a distended urinary bladder.

The prostate is difficult to visualize due to intrapelvic location and lack of urine distention with suspected thickening of bladder mucosa and possible proximal urethra. Suspected prostate measures 0.56 cm in width and appears normal in shape and size for this neutered male dog. Recommened reevaluation with more urine distention.

The left kidney has a normal shape and size (3.15 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. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (2.97 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. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.53 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 0.50 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. No focal nodules or cystic lesions are observed.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a mild amount of non-organized echogenic debris. 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 uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Duodenum wall measures 0.36 cm. Jejunum wall measures 0.25 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed. In some areas of bowel, hyperechoic foci were visualized, consistent with mucosal speckling.

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 normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Thickened irregular trigone region of the urinary bladder – suspect mass effect, recommend reevaluation with greater urine distention.

- Decreased corticomedullary distinction in both kidneys – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.

- Subjectively thickened small intestine with mucosal speckling – The mild small intestinal wall changes may be a normal variant in this patient or could be consistent with an inflammatory process (e.g., inflammatory bowel disease). Bright mucosal speckling has been proposed to represent dilated lacteals or focal accumulation of mucus, cellular debris etc.. in the mucosal crypts of the small intestine.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

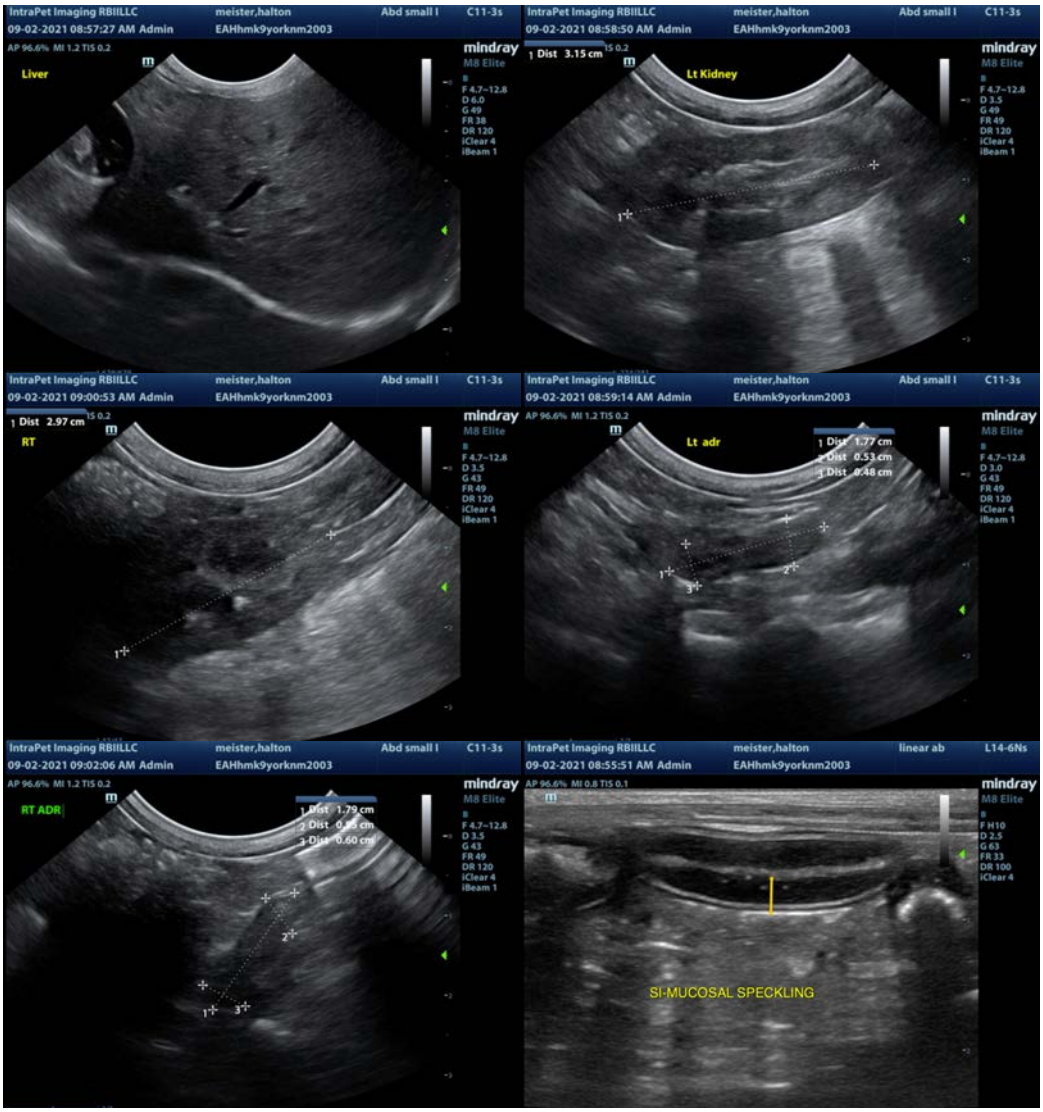
Based on the history and reported urinalysis results, I suspect the thickening in the trigone area of the urinary bladder represents a focal bladder mass. Unfortunately, optimal evaluation requires more urine distention, as there is some folding of tissue in this area of the urinary bladder, and in this scenario you can overinterpret thickening and wall changes. Additionally, it is difficult to evaluate the urethra and prostate, as this area is all bunched together. Options moving forward include:

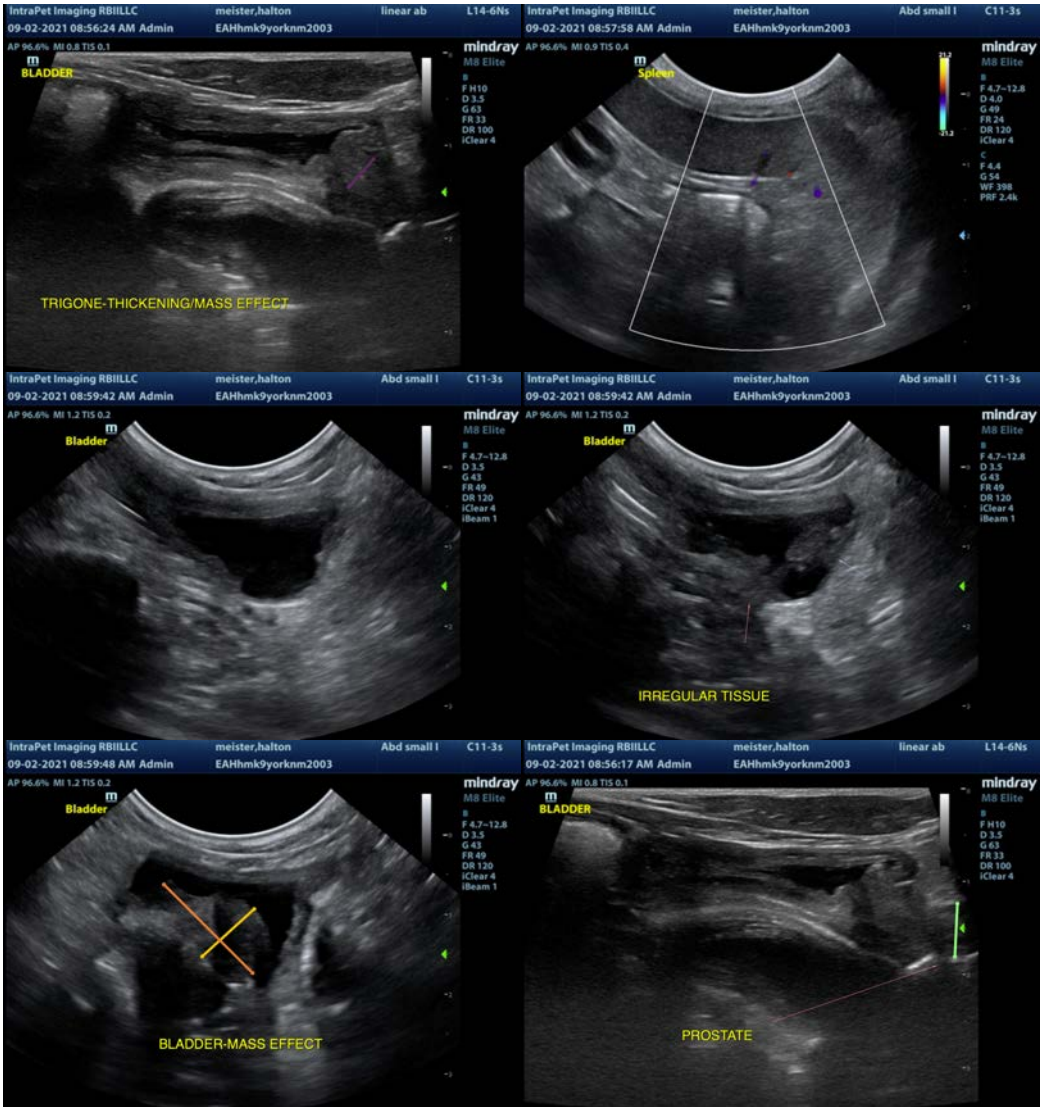
- Traumatic catheterization for cytology and fluid analysis to look for cancerous cells

- Urine BRAF test, positive test greatly increases the likelihood of a transitional cell carcinoma. A negative test result is non-diagnostic and requires further evaluation.
- Reevaluation of urinary bladder, urethra and trigone with more urine distention (can catheterize if necessary and instill sterile saline into urinary bladder).

The changes observed in the kidneys are consistent with chronic progressive renal disease, likely age related. Consider blood pressure evaluation in addition to the already performed urinalysis and culture.

Subjectively, the small intestine appears somewhat thickened with mucosal speckling, which can be an indicator of small intestinal disease/lymphangiectasia, etc. Correlate with clinical signs. If this patient has a history of intestinal issues, there could be some underlying IBD, etc.





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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