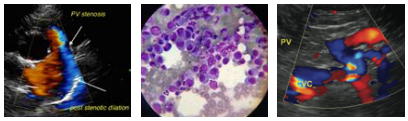
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

DATE

1/25/23

PATIENT

Hemi Marszalek

SPECIES

Canine

BREED

Dobreman Mix

SEX

Neutered male

AGE

7/18/09

WEIGHT

60 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

HOSPITAL NAME

Airpark AH

REFERRING VET

Dr. Owens

INVOICE

42333

PRESENTING CLINICAL SIGNS

Hx Thyroid carcinoma removed at VRA 12/2020. Did well post op. 2 weeks ago, developed acute hematuria and stranguria, treated for UTI with amoxicillin. Also developed acute PU/PD. Bloodwork unremarkable other than mildly elevated liver values and severely elevated lipase. Hyporexic x 2 weeks, shivering, lethargic. Still severely pu/pd, FAST scan shows possible thickening at trigone of bladder on ultrasound. Also proteinuric so started on benazepril 1 month ago.
Current Medications: Amoxicillin 750 mg PO TID started 1/16, Carprofen 50 mg PO BID, Amantadine 100 mg PO SID, Thyro Tabs 0.6 mg AM and 0.3 mg PM, Benazepril for proteinuria 7.5 mg PO SID, Dasuquin
Lab Results: See attached.
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 **bladder** in this patient was mildly thickened with slight echogenic mural changes. No calculi or masses were noted. Slight micropolypoid changes were noted. The muscularis and submucosal layers are intact. This is a frequent finding in older animals and may be linked to a history of chronic urinary tract infection or active urinary tract infection. Urinalysis would be recommended with culture if any evidence of inflammatory sediment is present. The region of the trigone and visible pelvic urethra were normal.

The residual prostate was uniform and measured 1.6 cm.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex. The left kidney measured 7.0 cm. The right kidney measured 7.22 cm with slight pyelectasia.

Adrenal Glands

The left adrenal gland was enlarged, irregular, nodular and mineralized measuring 4.19 x 1.68 cm at the caudal pole and 1.6 cm at the cranial pole. The right adrenal gland was nodular and mineralized. The nodule measured 1.17 x 0.65 cm. The right adrenal gland measured 4.24 x 1.44 cm at the caudal pole and 1.07 cm at the cranial pole.

Spleen

The **spleen** presented discrete and diffuse hypoechoic micronodular parenchyma. The capsule was generally smooth without noticeable impingement from within the spleen or from pathology in the adjacent abdomen. The splenic vasculature demonstrated normal volume without signs of congestion or significant contraction. These changes are consistent with age related benign nodular hyperplasia. However, early hemangiosarcoma, lymphoma or mast cell neoplasia could not be entirely ruled out. Fine needle aspirate or biopsy following coagulation panel would be ideal especially of any weight loss is an issue. Otherwise, follow up ultrasound in 3-4 weeks to track these changes would be a more conservative approach.

Liver

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some age-related parenchymal remodeling was noted but likely not clinically significant at this time. Vascular and biliary tracts were of normal volume and no evidence of congestion was

noted. The gallbladder presented some dependent debris with essentially normal contour. The cystic and common bile ducts were normal. No overt evidence of active inflammatory, infiltrative or regenerative pathology was noted but should be paired with current or past LE elevations regarding any clinical significance to this presentation. The hepatic lymph nodes were unremarkable.

Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

Free Abdomen

The iliac lymph nodes measured 2.07 x 0.8 cm and are reactive.

ULTRASONOGRAPHIC FINDINGS

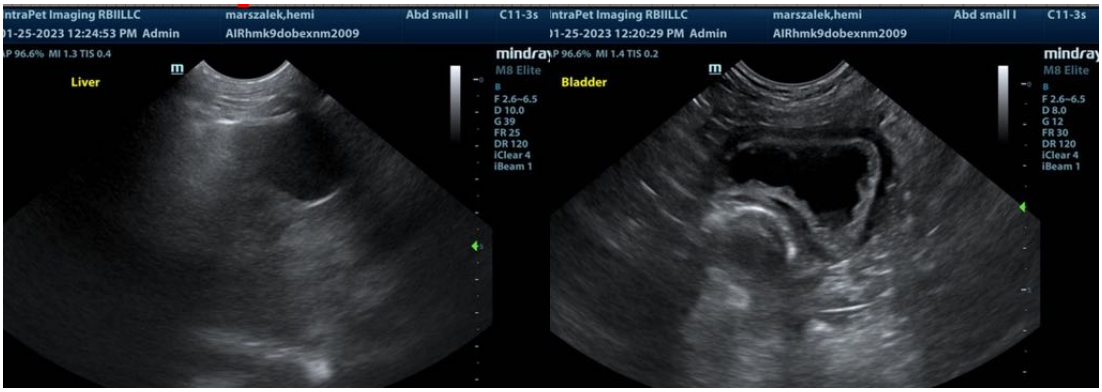
Minor polypoid cystitis pattern.
Bilateral adrenal enlargement with nodules and mineralization. Adenomas versus carcinoma.
Moderate hepatic remodeling.
Splenic nodular changes are present.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The adrenal glands should be monitored. Full adrenal work-up would be ideal in this patient as well as blood pressure measurements if hypertension is present. Urine catecholamine is indicated. Splenic and hepatic FNA are also indicated. Full urinary work-up for causes of cystitis is indicated. There is no overt evidence of metastatic disease. Recheck sonogram is recommended in a month to assess any progression or regression of the bladder presentation, adrenal glands, spleen and liver.

Canine Chronic UTI Protocol

I recommend **Enrofloxacin** (5-10 mg/kg SID PO) (In patients > 1 year of age) in late pm after urination to maximize urinary concentrations overnight. This assumes that culture supports this use. Repeat **culture** at 3-4 weeks and continue treatment at least 7-10 days post negative urinary sediment and negative culture. *Note: Negative culture does not necessarily mean lack of UTI.* Other favorite antibiotics for chronic UTI include third generation Cefa (Ceftiafur or similar s.i.d. injectable) or Clavamox. If suspicion of occult urinary incontinence is present then **phenylpropanolamine (PPA)** (1-2 mg/kg BID) can be employed long term to enhance urethral tone.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Liver
mindray
M8 Elite
Bladder
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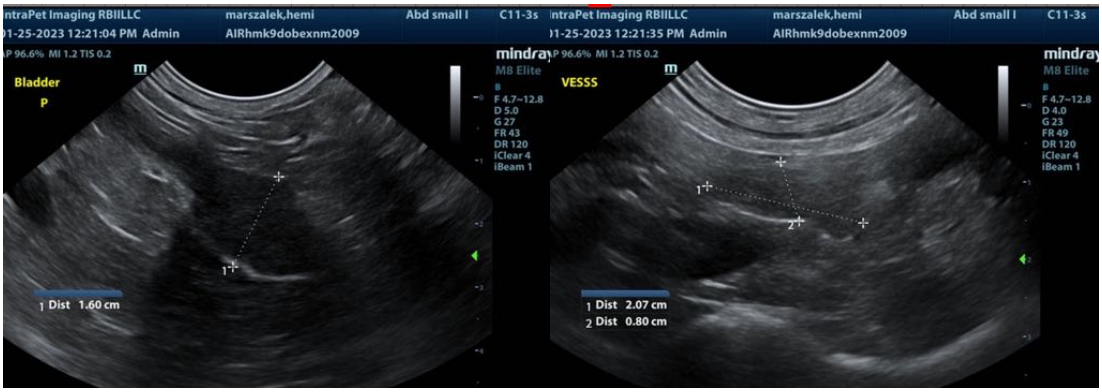
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C11-3s
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Bladder
P
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M8 Elite
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VESSS
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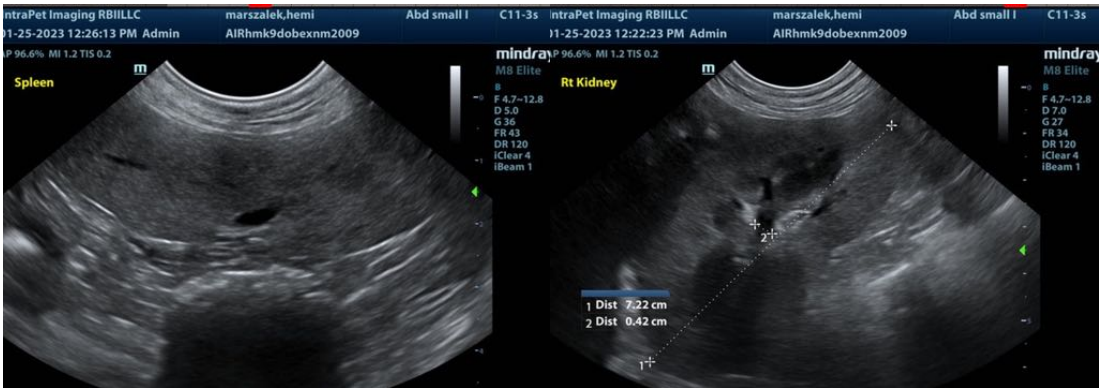
2 Dist 0.80 cm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AIRhmk9dobexnm2009
Spleen
mindray
M8 Elite
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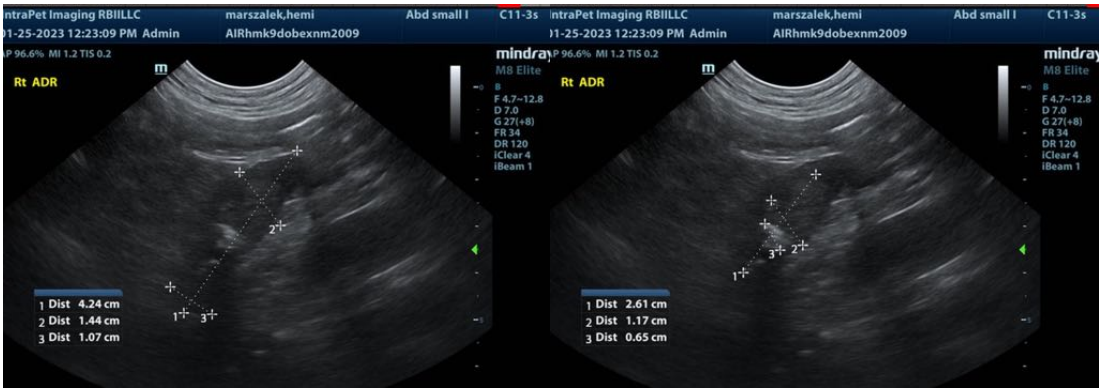
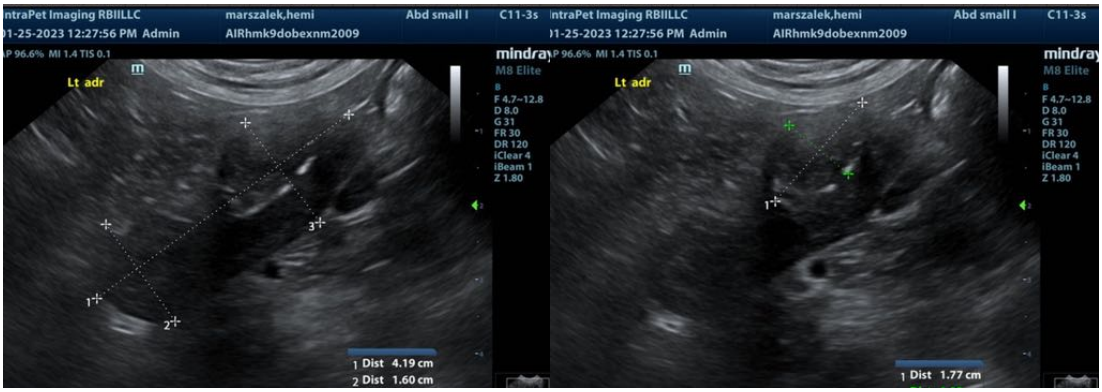
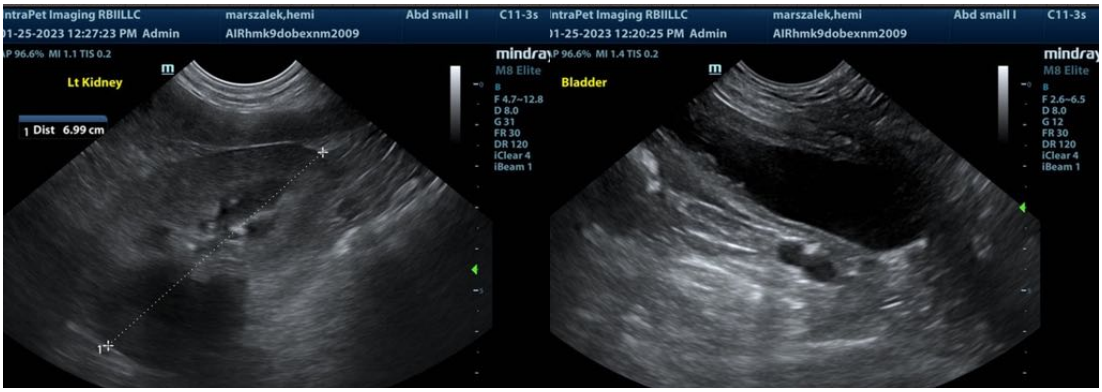
Rt Kidney
1 Dist 7.22 cm
2 Dist 0.42 cm







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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Eric.Lindquist@SonoPath.com