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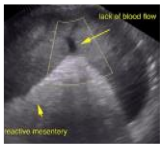
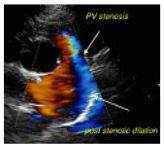
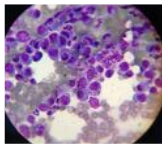
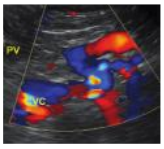

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1-800-838-4268 info@sonopath.com

PATIENT

Jem Savage

SPECIES

Canine

BREED

Norwegian Elkhound

SEX

MN

AGE

12 years

WEIGHT

62 lbs.

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Jenna Walsh, CVT

HOSPITAL NAME

Ark AH

REFERRING VET

Dr. Parker

INVOICE

14746

DATE

8/1/23

PRESENTING CLINICAL SIGNS

Hematuria. Tapering since first noticed few weeks ago but still present. Hx of progressive hind limb ataxia and lameness, suspect secondary to OA (sedated radiographs to be done today). Current Medications Pregabalin, carprofen Radiographic Findings To be done today Primary Question/Differential to Be Answered in This Exam Evaluation of GU tract for source of blood. Evaluation of prostate. Rads to be obtained during sedation today as well.

Abnormal PE/Chem/CBC/UA Results: CBC/T4/Chem - NSF UA (free catch) done 7/7: USG 1.028 Hematuria - 2+ occult blood, 11-20 RBCs/hpf Potential proteinuria (trace) - likely secondary to hematuria Occ WBC (2-3/hpf) Quiet sediment otherwise

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and cystourethral junction exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

The residual prostate exhibited mild enlargement with primarily maintained symmetrical capsule contour and mild nonhomogeneous pinpoint hyperechoic residual prostate parenchyma. Potential for residual prostate parenchymal extension into the adjacent proximal urethra is possible. There is no evidence of peri-prostatic inflammation. The residual prostate measured approximately 3.0 cm in diameter.

No evidence of medial Iliac or sublumbar lymphadenopathy/masses.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation, pyelectasia, or nephritis was present. The left kidney measured 6.0 cm in length. The right kidney measured 6.0 cm in length.

Adrenal Glands

The left adrenal gland was normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry were present without suspicion for overt neoplasia. The left adrenal gland measured 2.6 cm length x 0.59 cm width at the caudal pole.

The right adrenal gland exhibited subtle mid-cranial pole enlargement with capsule asymmetry and indistinct, nonhomogeneous to nodular mid-cranial right adrenal parenchyma. An indistinct right adrenal nodule measuring 1.3 cm x 0.8 cm was present. There was no evidence of capsular escape or overt vascular invasion.

Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

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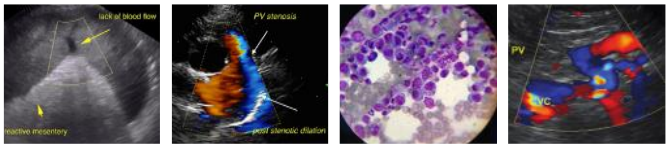

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Liver/ Gallbladder

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size containing primarily anechoic content with mild hyperechoic nonorganized gallbladder sediment. The cystic and common bile ducts were normal.

Transdiaphragmatic view revealed comet tail lung pattern, which is echogenic sound wave interface with microconsolidations within the caudal lung field. The lung field should not be visualized by sonogram unless pathology is present. Chest radiographs are recommended to rule out alveolar/lung disease such as neoplasia, thromboembolic disease, chronic inflammatory disease with microconsolidation.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with minor retained anechoic fluid and no signs of ileus, obstruction, or foreign material.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

The parenchyma of the left limb, body, and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease were evident.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

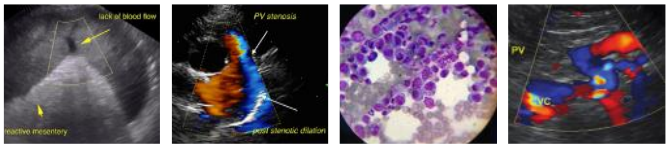
ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Mildly enlarged nonhomogeneous pinpoint hyperechoic residual prostate, potential prostatic parenchymal expansion into adjacent urethra
- Sonographically unremarkable non-distended urinary bladder
- Age-related renal changes
- Nonspecific transdiaphragmatic comet tail artifact
- Mildly irregular, nonhomogeneous, indistinctly nodular right adrenal gland - suspect adenoma

Secondary Findings

- Mild gallbladder sediment (non mucocele)



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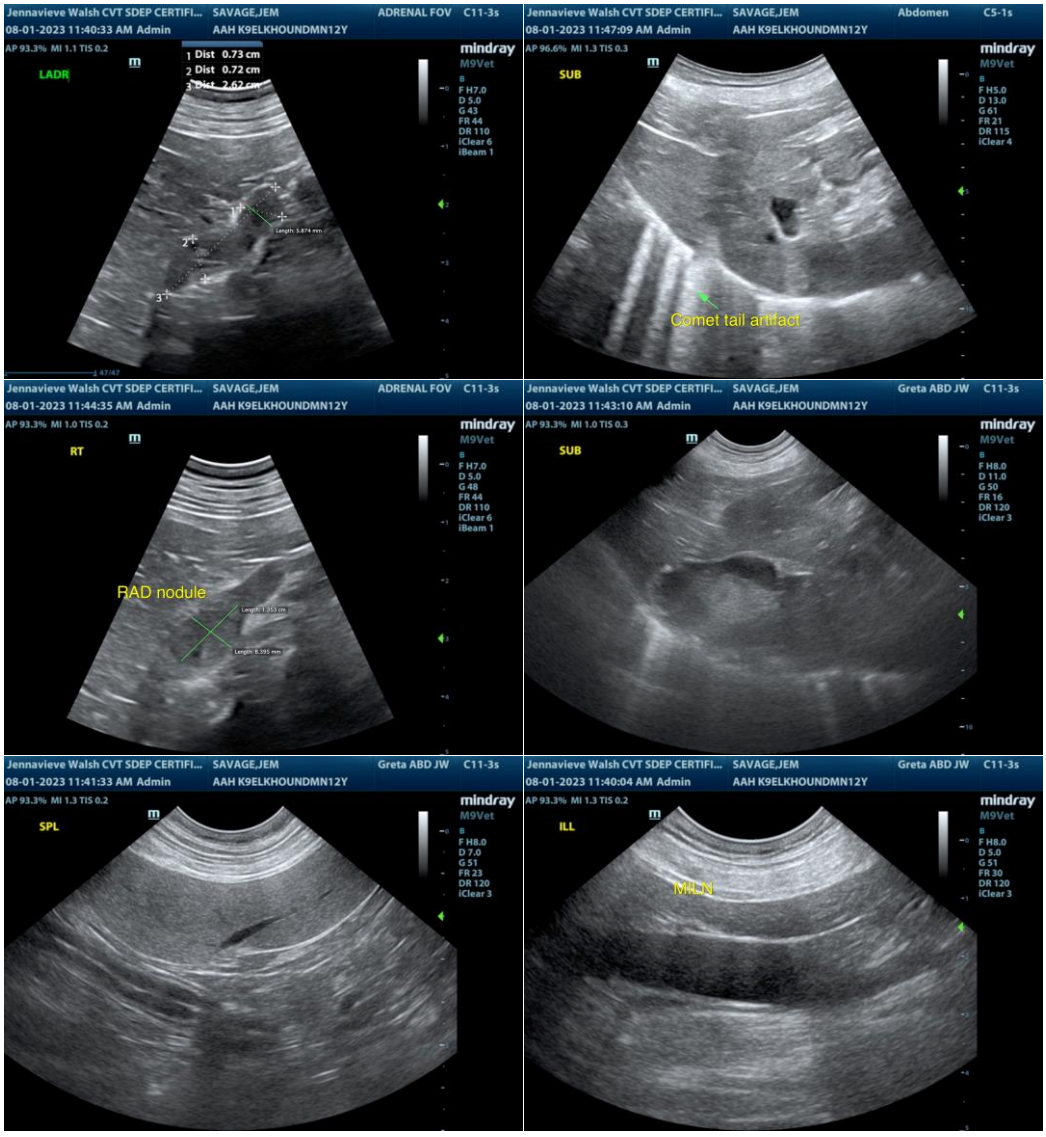
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Although sampling is required for further assessment yet given the lack of renal or urinary bladder pathology, the hematuria is strongly suspected to be secondary to residual prostatomegaly with concern for emerging prostatic neoplastic criteria. There is no overt evidence of regional lymphatic metastasis if emerging prostate neoplasia is confirmed.

Three-view chest radiographs are recommended. Assessment of systemic BP for evidence of hypertension which may allude to an emerging right adrenal pathology, i.e., pheochromocytoma, is suggested. Screening urine C/S on ideally a sterile urine sample is recommended to rule out underlying infection. Sonographic reassessment of the residual prostate and right adrenal gland for evidence of progressive parenchymal changes or enlargement would be a more conservative approach.



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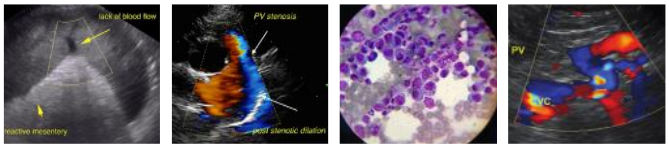

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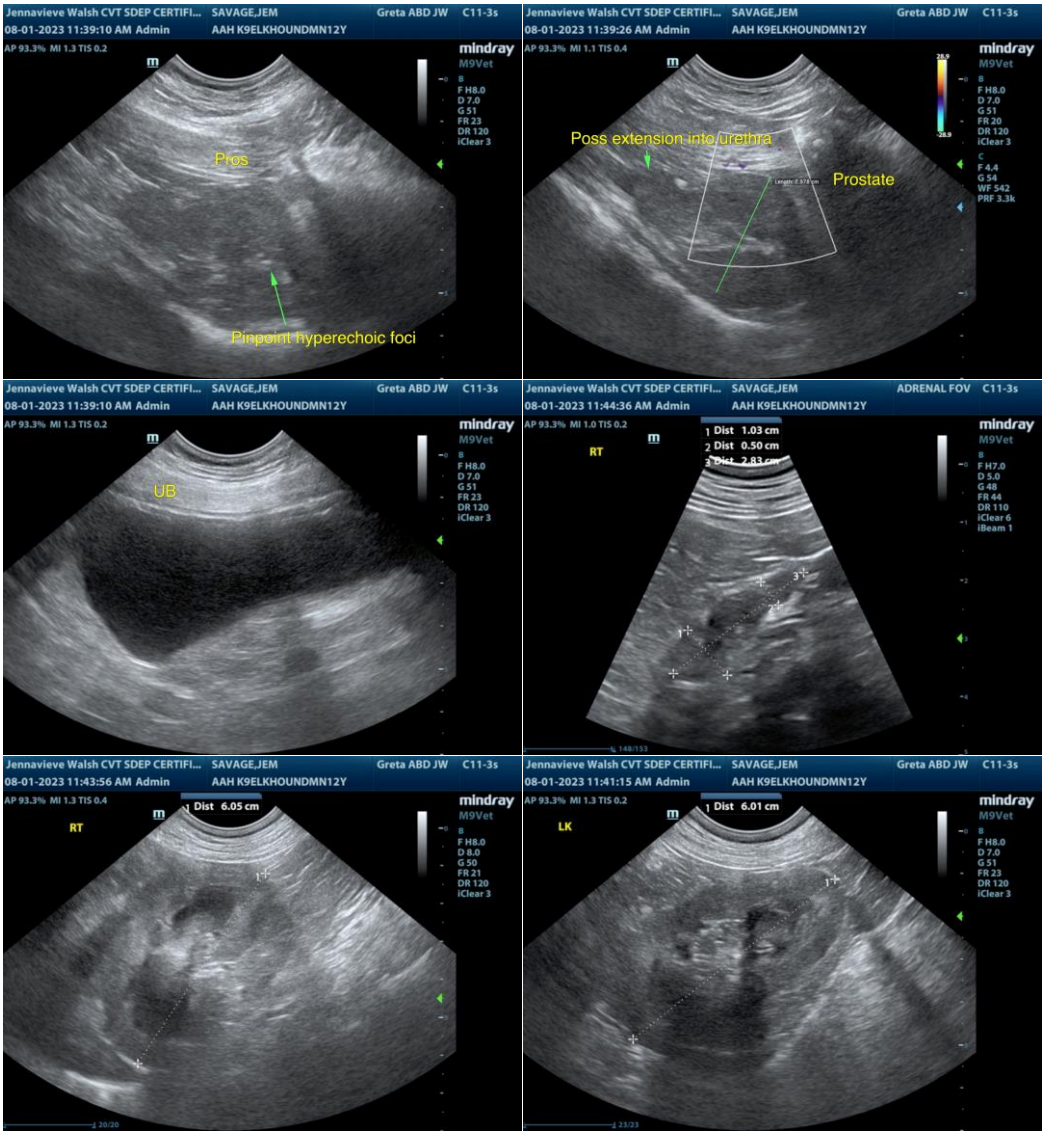

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)
info@sonopath.com