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Clinical Sonography & Telecytology
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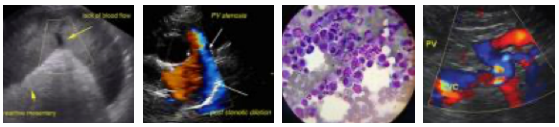


ANIMAL SOUNDS NW
MOBILE VETERINARY ULTRASOUND
IMAGING PERFORMED BY
AnimalSoundsNW.com 541-357-9423

PATIENT
Damascus Holmes

SPECIES
Canine

BREED
Dachshund

SEX
Male, neutered

AGE
15 Yrs.

WEIGHT
8.64 lbs.

INTERPRETED BY
Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

IMAGING PERFORMED BY
Sara Hansen

HOSPITAL NAME
West Hills AH

REFERRING VET
Dr. Remcho

DATE
1/18/22

INVOICE
12875

PRESENTING CLINICAL SIGNS

History: P presented for hematuria and E. coli infection in December 2021. O is also observing change in urination pattern - more frequently and varying amounts. P has had liver issues, chronic GI symptoms and a splenic nodule on previous exams. P also has SHM and enlarged LA.
Abnormal PE/Chem/CBC/UA Results: Hx of elevated liver enzymes Current Medications Vetmedin and Metronidazole along with a limited ingredient diet

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with mostly anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is normal in size (0.77 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal in size (3.63 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Several varying sized cortical cysts are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal in size (3.94 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed +/- tiny non-obstructive nephroliths. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is enlarged (1.03 cm at cranial pole) (0.92 cm at caudal pole) (2.70 cm in length) with a slightly irregular shape. The parenchyma is mostly homogeneous with minimal loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature are normal.

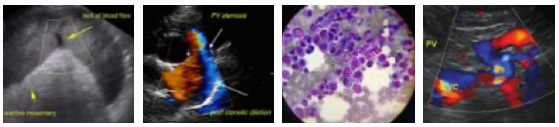
The right adrenal gland is normal size (1.19 cm at cranial pole) (0.52 cm at caudal pole) (1.79 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (xxx cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively prominent in size with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely heterogeneous in appearance with ill-defined hyperechoic and hypoechoic areas throughout the organ. Vascular and biliary tracts are of normal volume with no



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evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. An excessive amount of aggregated echogenic suspended sludge in a partially stellate pattern is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

Pancreas

The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

Other

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

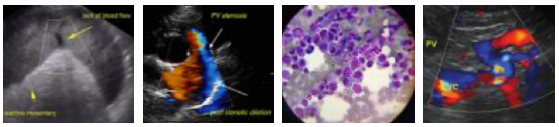
ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- An obvious cause for the patient's clinical signs is not identified in this study. Differentials include urinary tract infection, microscopic lower urinary tract neoplasia, other.
- The gallbladder changes are concerning for a developing mucocele. Cholestasis is another possible differential.

Secondary Findings:

- Bilateral age-related renal changes with non-obstructive dystrophic mineralization. Changes are similar to the previous sonogram.
- Mild left adrenomegaly.
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory



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and infiltrative disease are considered less likely. Changes are similar to the previous sonogram.

- Age-related pancreatic remodeling +/- fibrosis. Changes are similar to the previous sonogram.

*The previously observed splenic nodule is not seen on today's scan. It may be that the lesion is no longer present or may be in an area that is difficult to visualize sonographically.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Baseline labwork including a CBC chemistry panel, urinalysis and T4 is recommended if not performed recently.
- A repeat urine culture and sensitivity is recommended. If positive, a more prolonged antibiotic course (i.e., every 3-4 weeks) may be warranted. A urine culture is recommended halfway through the antibiotic course and again 5-7 days after the last dose.
- To further assess for microscopic lower urinary tract neoplasia, consider a urine BRAF test.
- Given the gall bladder changes, Ursodeoxycholic acid (Ursodiol) at 10-15 mg/kg once a day is recommended. Serial sonographic monitoring (e.g., every 6-8 weeks) of the gall bladder is recommended to assess for progression to a fully-formed mucocele.
- Consider testing for hyperadrenocorticism with a low-dose dexamethasone suppression test or ACTH stimulation test if clinical signs (i.e., PU/PD) develop in the future.

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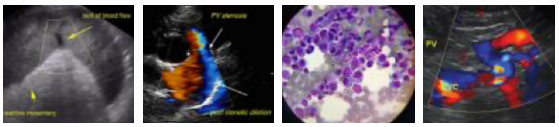

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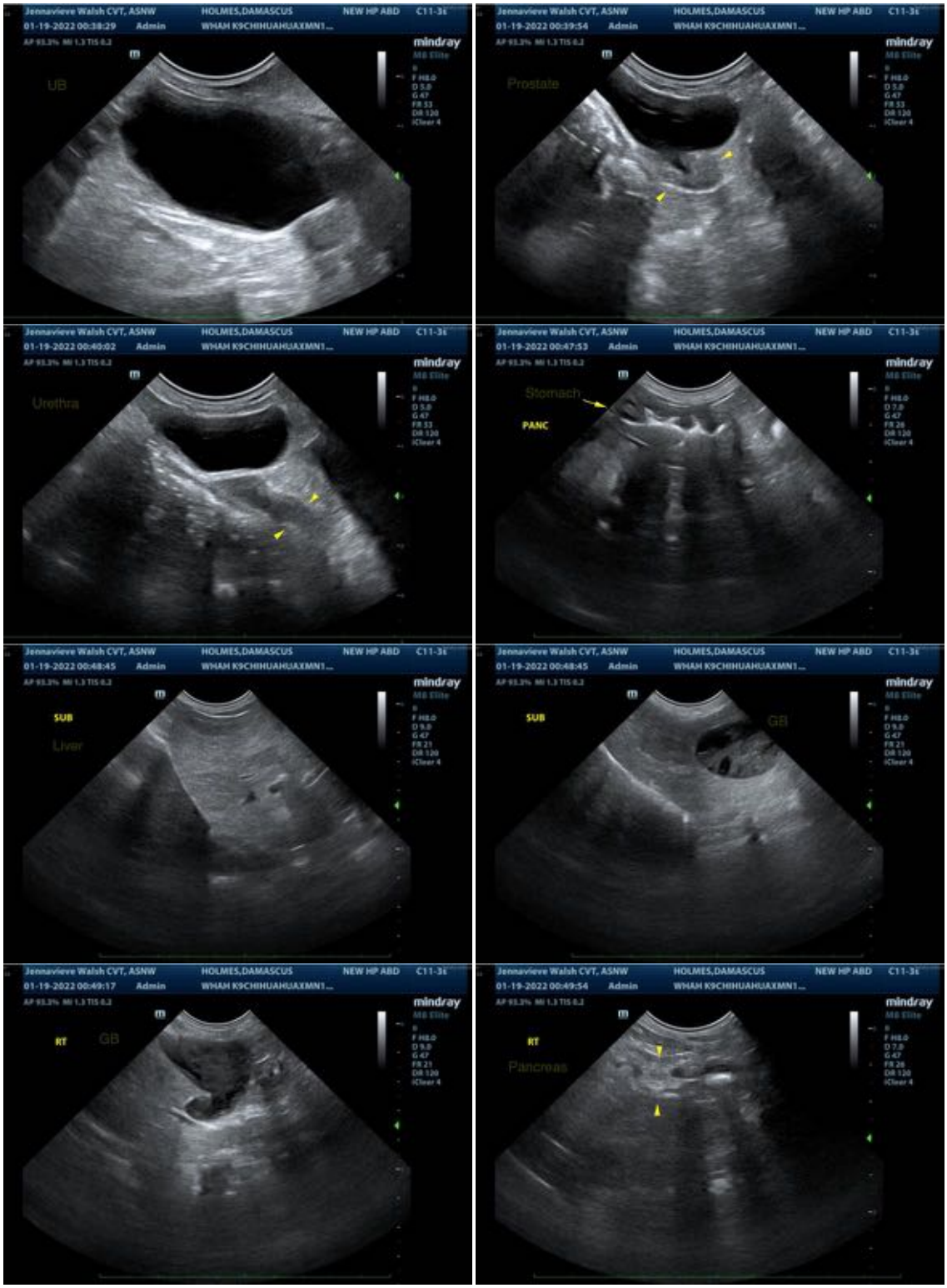

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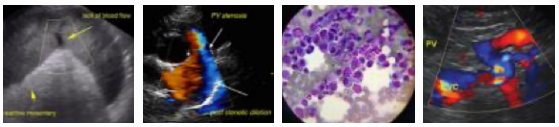

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

andrea.nicastro@sonopath.com