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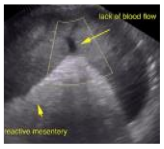

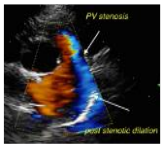

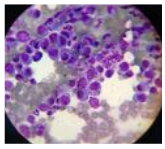
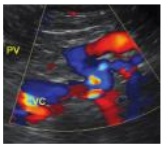

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Nico Aull

SPECIES

Canine

BREED

Terrier X

SEX

FS

AGE

13 years

WEIGHT

12.6 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Sarah Barthelemy

HOSPITAL NAME

Britannia Kingsland VC

REFERRING VET

Dr. Radcliffe

INVOICE

14848

DATE

9/13/22

PRESENTING CLINICAL SIGNS

Presented July 27th for urinary incontinence and plantigrade stance with worsening periodontal disease. Started on zentonil, aventi kidney complete and urinary SO diet.
Abnormal PE/Chem/CBC/UA Results: Mild platelet increase. Renal azotemia (creat 150, sdma 17). Hypercalcemia 3.1 mmol/L (was 2.9 in July). Mild hyperkalemia. ALP elevation 1575 (was 1479 in July). USG 1.015 with protein on dipstick. Previous UTI E. coli in July - Treat with Baytril.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm 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 area of the aortic trifurcation was free of pathology.

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 to moderate loss of corticomedullary symmetry and definition expected for the age of the patient. Pinpoint medullary mineral was noted in both kidneys. Scant bilateral pyelectasia and intermittent cortical cysts were noted. The left kidney measured 5.0 cm in length. The right kidney measured 5.5 cm in length.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.69 cm width at the caudal pole and 0.63 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.57 cm width at the caudal pole and 0.57 cm width at the cranial pole. No evidence of adrenomegaly or tumors was noted.

Spleen

The spleen was normal in size and contour with generalized parenchyma heterogeneity exhibiting intermittent, small, well-demarcated, nondisruptive, hyperechoic nodules primarily in the medial parenchyma. Normal splenic vascularity was noted.

Liver/ Gallbladder

The liver exhibited mild to moderate generalized enlargement with normal structure and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. 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 moderate, nondependent to mildly congealed yet nonorganized, pinpoint to focally hyperechoic gallbladder debris primarily in the caudal lumen and gallbladder neck. No evidence of gallbladder or peripheral gallbladder inflammatory criteria was noted. The cystic and common bile ducts were normal.

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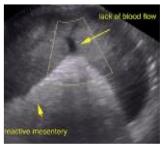

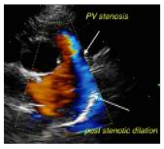

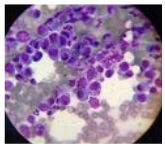
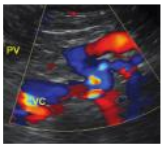

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Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with 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 pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia. This is likely consistent with age-related pancreatic changes and incidental.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Bilateral chronic renal changes exhibiting pinpoint medullary mineral, scant pyelectasia and intermittent cortical cysts
- Sonographically unremarkable urinary bladder and visible proximal urethra
- Hepatopathy exhibiting mild generalized parenchymal remodeling - subjectively benign
- Moderate gallbladder debris (non-mucocele)

Secondary Findings

- Benign splenic nodules - consistent with myelolipomas

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Recheck urine culture and sensitivity, as well as further renal staging to include UPC level are suggested if evidence of inflammatory cells on urinalysis and / or consistent proteinuria is noted. CKD therapy may be considered.

Overall, the appearance of the liver was nonspecific yet suggestive of vacuolar hepatopathy and nonobstructive cholestasis, given the ALP elevation. Potential for concurrent inflammatory disease, i.e., cholangiohepatitis, given the presence of gallbladder debris, is possible with neoplastic criteria considered unlikely. Further assessment may include screening hepatic FNA cytology, assuming normal clotting status. Hepatosupportive medications including Denamarin and Ursodiol may prove beneficial.

Three-view chest radiographs, if not done, rectal palpation, as well as hypercalcemia panel could be considered if persistent / progressive hypercalcemia. No sonographic evidence of adrenal pathology was noted. Full adrenal workup could be considered if strong clinical suspicion of Cushing's Syndrome.

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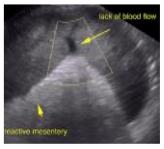

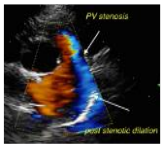

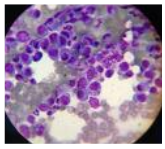
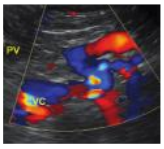

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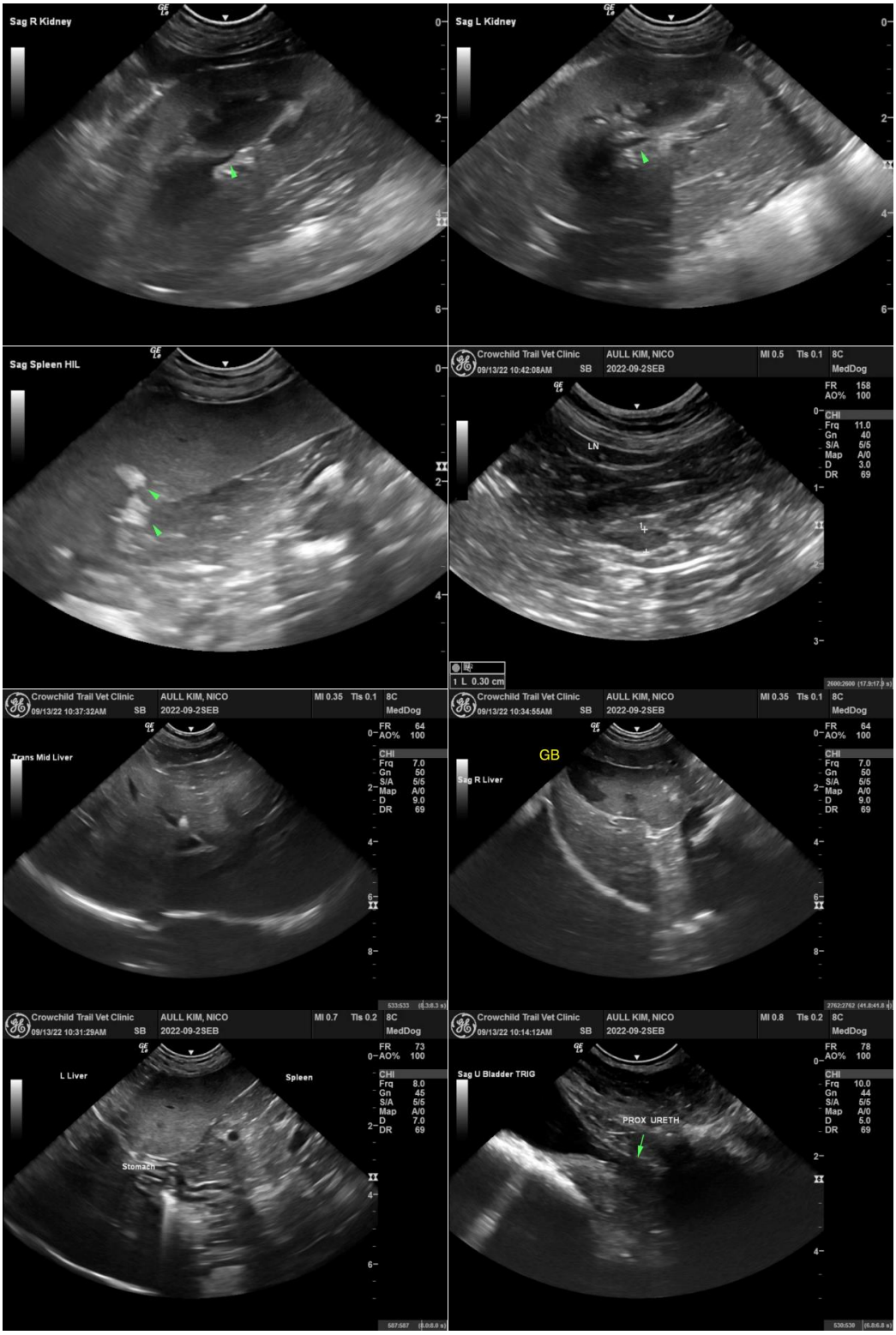

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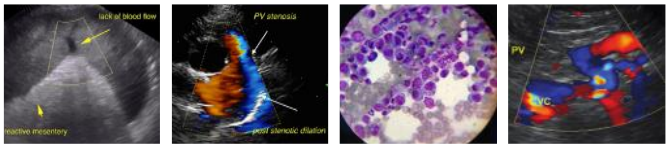

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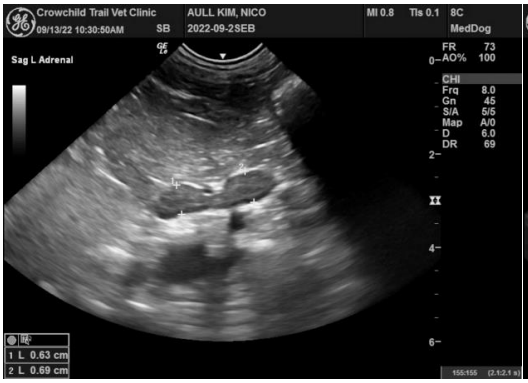

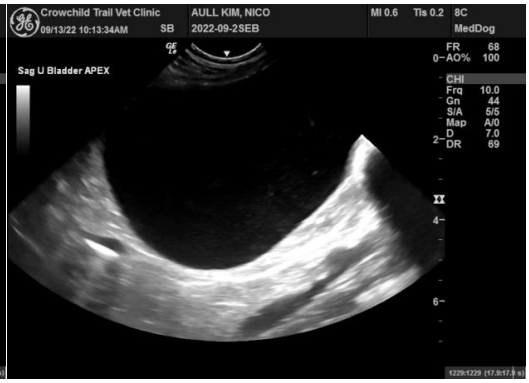

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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