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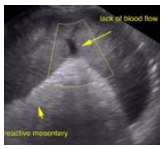

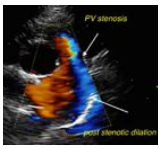

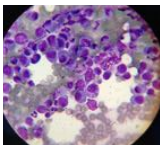
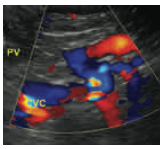

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1-800-838-4268 info@sonopath.com

PATIENT

Charlie Shannon

SPECIES

Canine

BREED

Lowchen

SEX

Neutered male

AGE

14 years

WEIGHT

17.8 lbs

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Newton VH

REFERRING VET

Dr. Kim

INVOICE

92727

DATE

10/28/21

PRESENTING CLINICAL SIGNS

History: Azotemic, weight loss, V/D. CPL abn. Current meds: Pred
Abnormal PE/Chem/CBC/UA Results: BUN 120.9, Cr 1.8, Ca 12.4, Glob 4.2, ALT 277, ALP 887, Lymph 0.3, U/A-cysto pending.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The residual prostate was uniform and measured 1.06 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 this age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right kidney measured 5.3 cm. The left kidney measured 4.63 cm with minor pyelectasia. Blood flow to the kidneys appeared to be mildly subnormal on Power Doppler assessment likely owing to chronicity.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 1.29 x 0.61 cm at the cranial pole and 0.61 cm at the caudal pole. The left adrenal gland measured 1.69 x 0.58 cm at the cranial pole and 0.55 cm at the caudal pole.

Spleen

The **spleen** revealed hypoechoic nodules and are non-disruptive measuring up to 0.81 cm.

Liver

The **liver** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. Hypoechoic, non-disruptive nodules were noted and measured up to 1.4 cm in the caudate process. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia.

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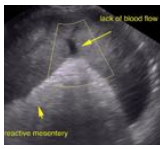
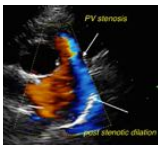
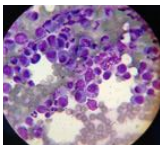
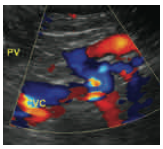

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Gastrointestinal

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. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

Heart

Rapid view of the heart revealed no evidence of pathology.

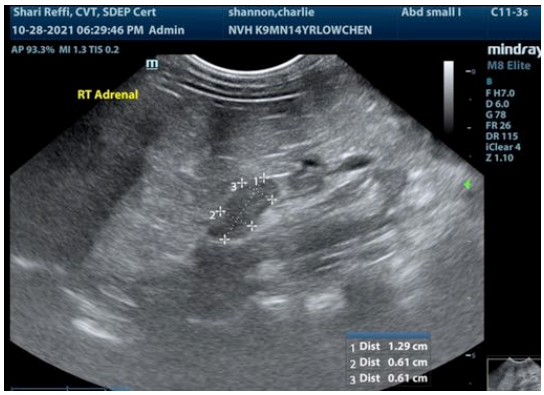
ULTRASONOGRAPHIC FINDINGS

Non-specific, mild to moderate degenerative renal changes with pyelectasia. Acute on chronic disease process, toxin exposure or infectious agent is suspected.

Undefined hepatosplenic nodules. Non-disruptive, likely hyperplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a minor potential for underlying neoplasia. However, FNA would be appropriate. 72-hour IV fluid protocol and Leptospirosis titers are indicated as well as assessment for toxin. Urine culture is recommended and if any inflammatory sediment is present as well as blood pressure measurements. Baseline cortisol could be justified. Even though the adrenal glands appear normal the patient is likely too old for Addison's, however, this should be ruled out as a potential.



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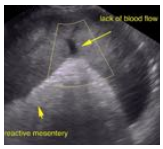
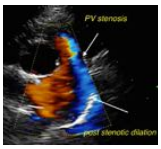
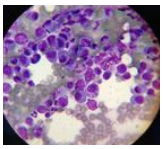
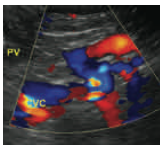

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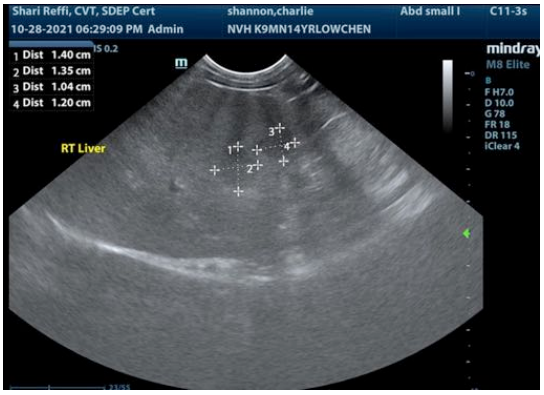

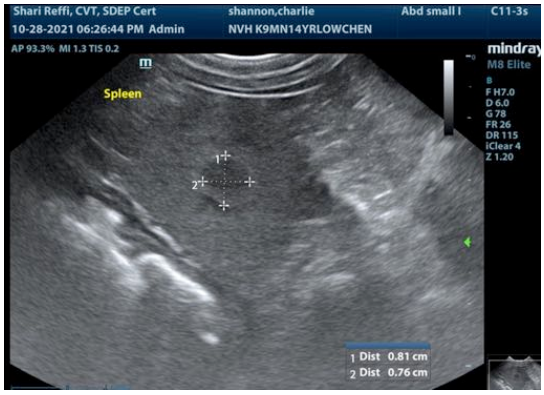

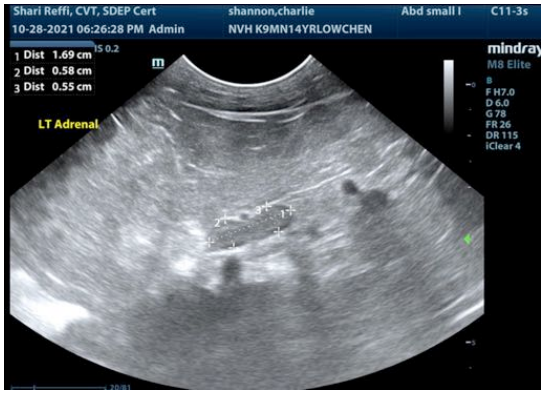

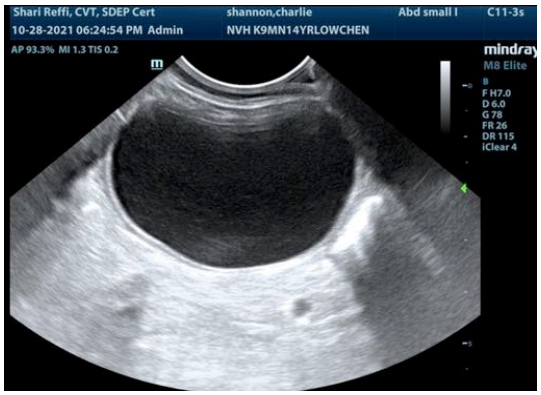

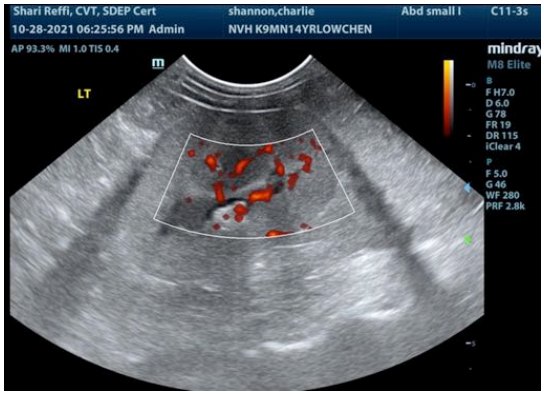

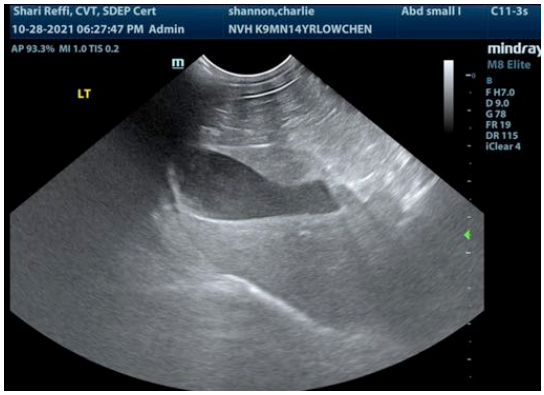

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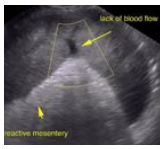
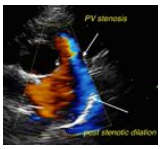
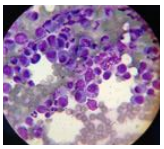
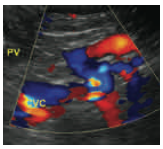

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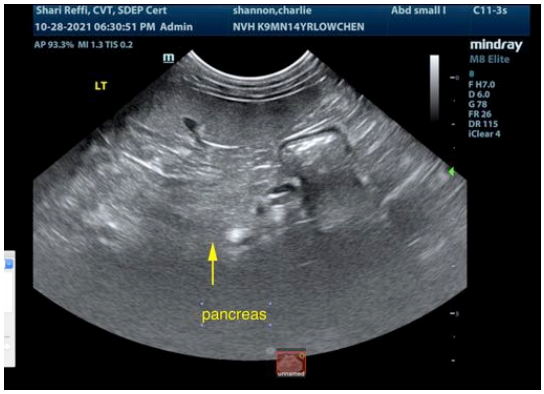

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
Info@SonoPath.com