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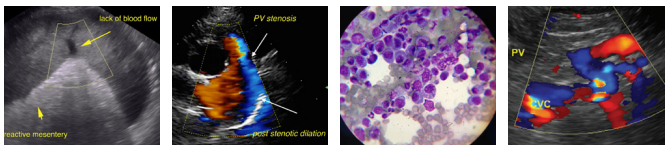
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Winston Churchill Kistler

SPECIES
Canine

BREED
Terrier Mix

SEX
Neutered male

AGE
9 years

WEIGHT
12.2 lbs

INTERPRETED BY
Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY
Dr. McElroy

HOSPITAL NAME
Pet Med Plus

REFERRING VET
Dr. McElroy

INVOICE
42807

DATE
2/14/23

PRESENTING CLINICAL SIGNS

History: History of seizures, on KBr and Phenobarbital to control them. Presented 1/2/23 for ultrasound and bloodwork. Ultrasound was WNL except for two hypoechoic areas in the spleen. Recheck today (2/14/23) showed these areas with possible more present. Right adrenal gland was also measuring at 0.65cm today. It was 0.44cm on 1/2/23.
Abnormal PE/Chem/CBC/UA Results: Abdominal ultrasound was performed on 1/2/23 because of an elevation in ALT (161). Recheck of ALT today (2/14/23) was WNL.

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 **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 and no evidence of pelvic dilation was present. The left kidney measured 4.0 cm. The right kidney measured 4.0 cm.

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 left adrenal gland measured 0.34 cm. The right adrenal gland measured 0.67 cm.

Spleen

The **spleen** revealed focal, hypoechoic, non-disruptive nodules measuring up to 0.35 cm and 0.55 cm. FNA of the spleen is indicated. Other heterogenous changes were noted.

Liver

The **liver** was mildly subnormal in size with uniform parenchyma. The gallbladder was 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.

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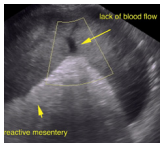

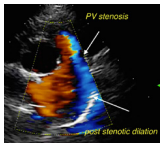

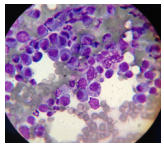
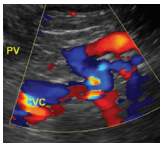

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Pancreas

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.

ULTRASONOGRAPHIC FINDINGS

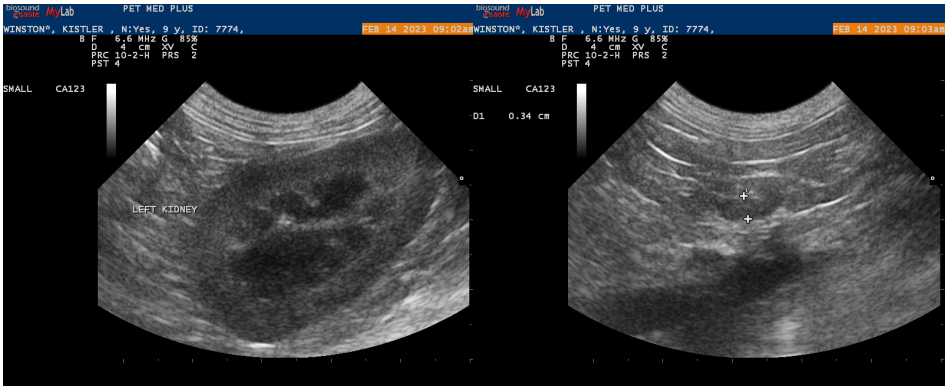
Splenic nodular hyperplasia versus abscessation, round cell neoplasia and possibly hemangiosarcoma.

Mild microhepatica without evidence of pathology.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Recheck sonogram is recommended in 3-4 weeks to assess for any progression. Otherwise, the abdomen was stable. Bile acid profile is appropriate given the microhepatica. The ALT elevation is likely due to reactive hepatopathy or other form of low-grade inflammatory hepatopathy. If bile acids are elevated it may be lowering the seizure threshold in this patient.

The hepatic clinical sonographic presentation is most consistent with Reactive Hepatopathy which is the most common cause of liver enzyme elevation in dogs and cats. The presumption is that gut and other organ antigen stimuli may be causing a low-grade immune response through portal system with which the liver is reacting to causing low-grade enzyme elevations. US-guided FNA could be performed to assess if low grade lymphoplasmacytic inflammation is present that would support this theory. If FNA is performed, please ask the cytologist to emphasize the primary inflammatory cell type. Empirical treatment measures to address this issue can include diet change to hydrolyzed diet, probiotics, deworming, nutraceuticals (SAMe, Actigall…), dental exam and cleaning, and potentially antibiotics such as Clavamox. Metronidazole and Tylosin have traditionally been utilized for this purpose but new studies show that both these antibiotics can disrupt the normal intestinal bacterial flora (intestinal dysbiosis) for weeks and up to 4-6 months. Therefore, Metronidazole and Tylosin should be utilized as a last resort if other efforts have not been effective and sonographic organ appearance remains benign.



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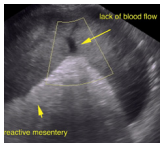

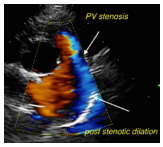

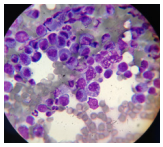
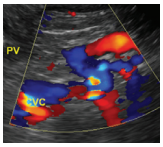

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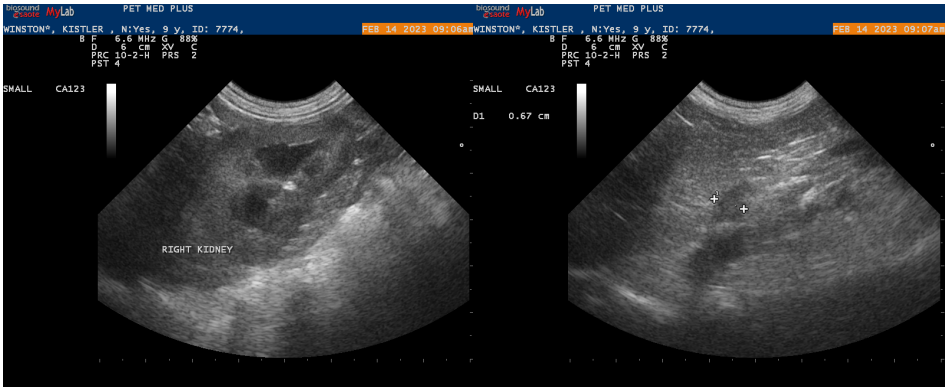

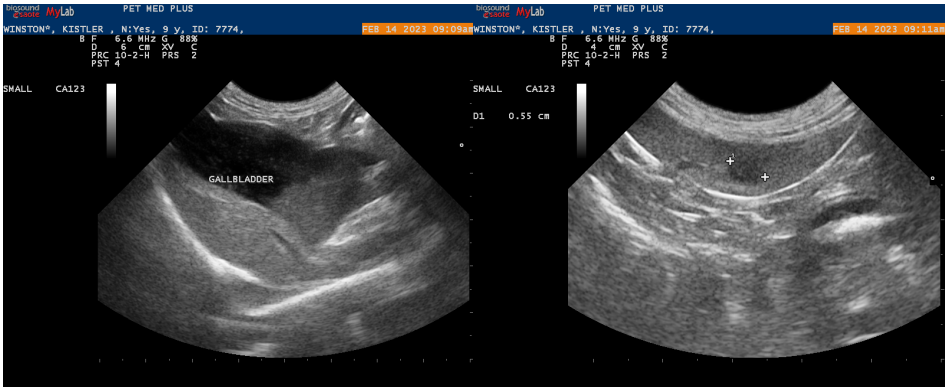

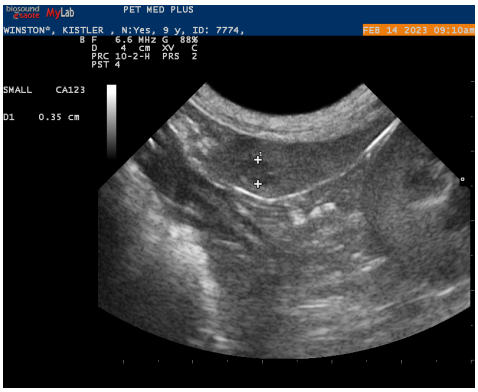

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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