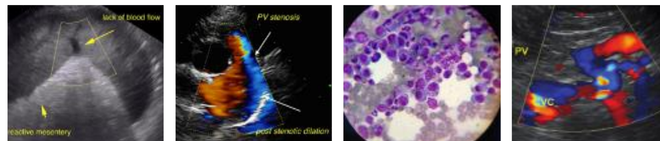

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1-800-838-4268 info@sonopath.com

PATIENT

Leonard Chenoweth

SPECIES

Canine

BREED

Shih Tzu

SEX

Neutered Male

AGE

15 Years

WEIGHT

11.1 Pounds

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Couser

HOSPITAL NAME

Willamette VH

REFERRING VET

Dr. Couser

INVOICE

15887

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6/4/22

PRESENTING CLINICAL SIGNS

History: Transfer from rDVM for further workup of decreased appetite for 2 weeks with total lack of interest in food for 3 days. Vomited once on 6/2/22. No known dietary indiscretion of FB exposure.

Abnormal PE/Chem/CBC/UA Results: Exam unremarkable. Blood work & rads done 6/3/22 @ rDVM: CBC: LYM 0.84k, rest wnl. Chem: BUN 30, GLOB 2.1, rest wnl. cPL = normal UA: USG 1.030, pH 5.0, bacteria suspected on slide, submitted for urine culture. Abd rads @ rDVM - Rad report: Stomach contains mild amount of gas & soft tissue opaque material. Tubular soft tissue opaque soft tissue structure along ventral abdomen. Microhepatica. Recommended abd US.

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 were noted. Ureteral papillae were normal. The pelvic urethra was imaged 3.0 cm beyond the cystourethral junction.

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. Mineralization was present in the kidneys. The left kidney measured 3.0 cm. The right kidney measured 4.0 cm. Non-obstructive calculi noted.

Adrenal Glands

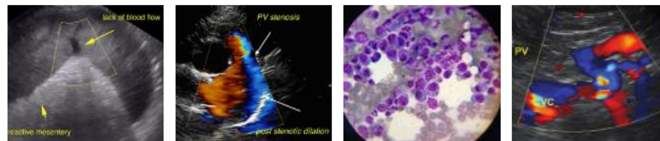
Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.4 cm. The right adrenal gland measured 0.4 cm.

Spleen

The **spleen** was largely smooth with subtle heterogeneous parenchymal changes while maintaining normal echogenic relationship to the liver and kidney. These changes are consistent with minor age-related alteration. The capsule was smooth without noticeable impingement from within the spleen or from pathology in the adjacent abdomen. The splenic vasculature demonstrated normal volume without signs of congestion or significant contraction. No evidence of active acute or chronic inflammatory, neoplastic, or infarctual changes were noted. A 6.0 mm hypoechoic nodule was noted at the mid splenic body, likely idiopathic and benign.

Liver

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some mild age-related parenchymal remodeling was noted but likely not clinically significant at this time. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder presented some dependent debris with essentially



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normal contour. The cystic and common bile ducts were normal. No overt evidence of active inflammatory, infiltrative or regenerative pathology was noted but should be paired with current or past LE elevations regarding any clinical significance to this presentation. The hepatic lymph nodes were unremarkable.

Gastrointestinal

Some retention of ingesta was noted in the **stomach**. A portion of small intestine revealed stricturing pattern, extending for approximately 4.0 cm with partial obstruction, strongly consistent with intestinal lymphoma or carcinoma. Nonneoplastic intestinal necrosis possible. I recommend exploratory surgery and resection anastomosis. Intraoperative ultrasound guidance is ideal. Leiomyosarcoma is a mild potential. A second portion of stricturing small intestine was noted, measuring approximately 1.5 cm x 2.0 cm. Both lesions appear to be jejunal.

Pancreas

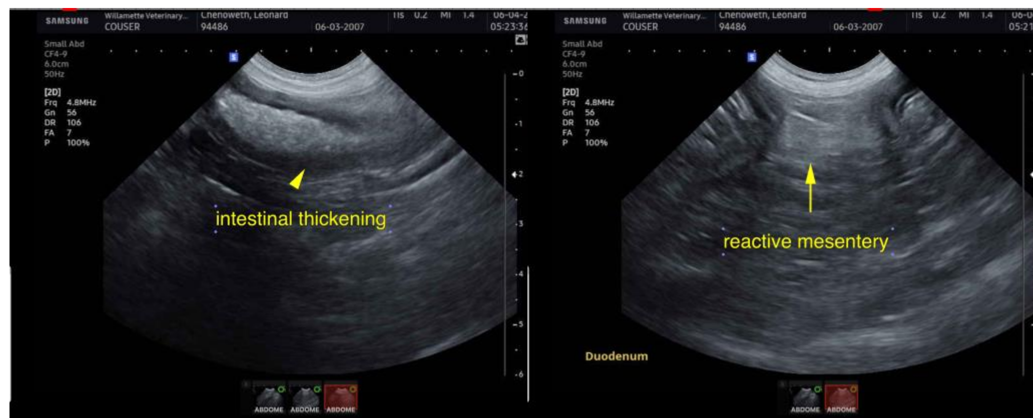
The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

ULTRASONOGRAPHIC FINDINGS

- Stomach ingesta
- Abnormal partially obstructing portion of small intestine. strongly consistent with intestinal lymphoma or carcinoma. Nonneoplastic intestinal necrosis possible. A second portion of stricturing small intestine was also noted.
- Age-related spleen with hypoechoic nodule noted
- Age-related renal changes with mineralization

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

I recommend exploratory surgery and resection anastomosis. Intraoperative ultrasound with guidance to the infiltrative or pathological intestinal patterns would be ideal in this patient, as direct surgical visualization may not be adequate to identify and delineate the lesions. FNA of the splenic nodule and one intestinal lesion could be attempted, however, may be difficult to exfoliate the intestinal pathology. Leiomyosarcoma is a mild potential.



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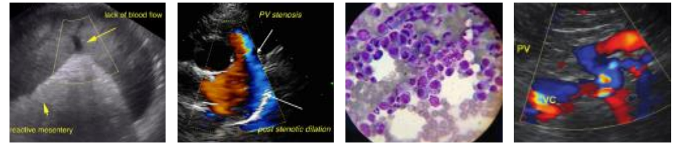

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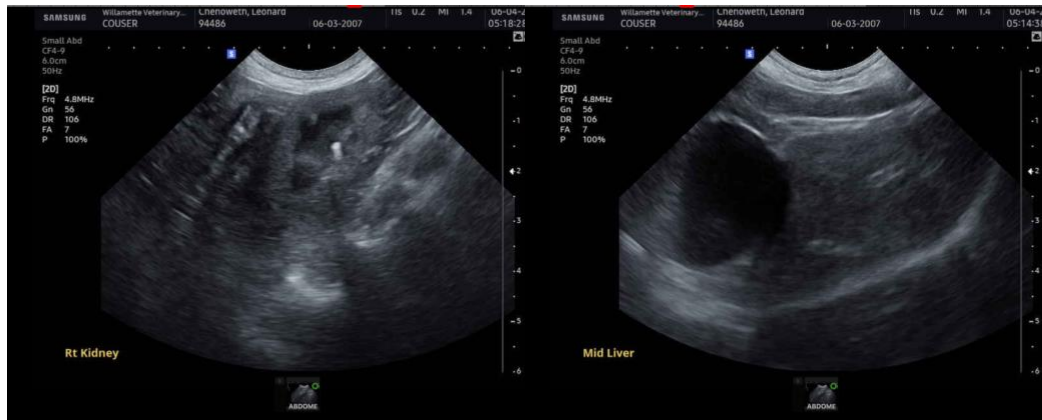

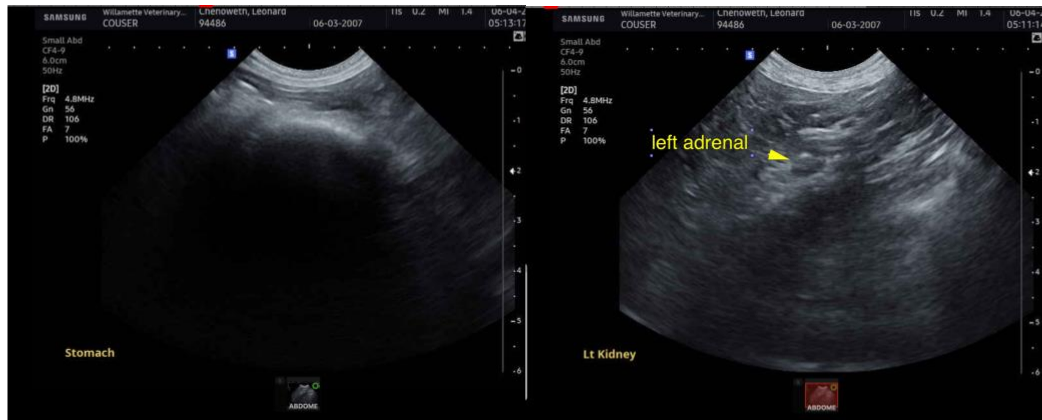

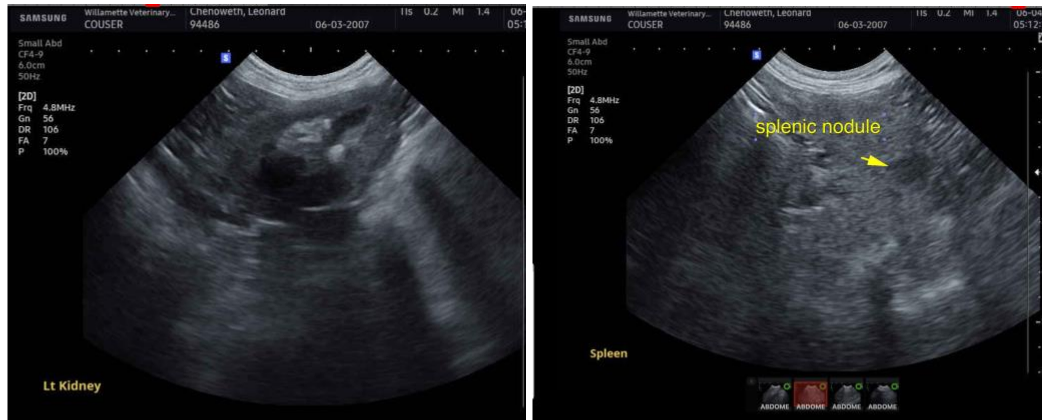

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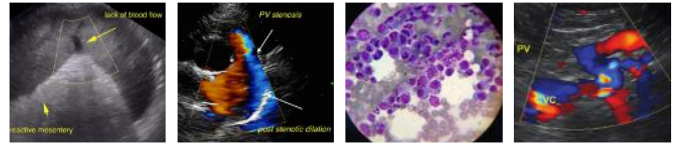

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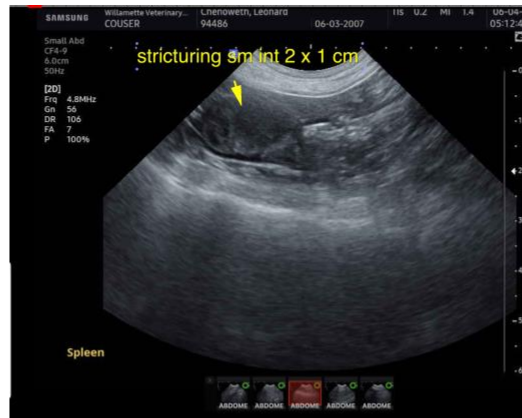

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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