

PATIENT

Emilie Watt

SPECIES

Canine

BREED

Shih Tzu

SEX

Spayed female

AGE

3 years

WEIGHT

8.2 kg

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUS

IMAGING PERFORMED BY

Crystal Hill, RVT

HOSPITAL NAME

Dundas AH

REFERRING VET

Dr. Middleton

INVOICE

43054

DATE

3/1/23

PRESENTING CLINICAL SIGNS

History: persistently elevated ALT and ALKP soft green stool metronidazole 100 mg q12hrs, sulcrate 2 ml q12hrs and fortiflora q24 hrs cholestasis vs gall stone?, vs microhepatica vs shunt vs other?
Abnormal PE/Chem/CBC/UA Results: ALT 994 (18-121) ALKP 546 (23-212)

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 normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The right kidney measured 3.45 cm. The left kidney measured 3.95 cm.

Adrenal Glands

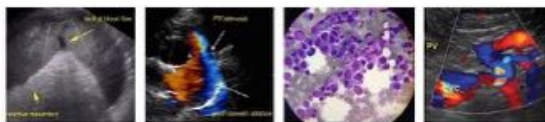
Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 1.59 x 0.68 cm at the caudal pole and 0.56 cm at the cranial pole. The right adrenal gland measured 1.22 x 0.47 cm at the caudal pole and 0.78 cm at the cranial pole.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

Liver

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. The portal vein to vena cava ratio was 1:1 at 0.5 cm. There was no evidence of intrahepatic or extrahepatic shunting. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.



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Gastrointestinal

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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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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.

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ULTRASONOGRAPHIC FINDINGS

Structurally normal abdomen.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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Acute hepatic insult. There was no evidence of macroscopic shunting. FNA of the liver is warranted. Leptospirosis titers and assessment for cause of acute insult is recommended. Structurally at this time there is no evidence of hepatic remodeling. However, if ALT remains persistently elevated then fibrosing pattern may develop, yet at this time the liver appears normal. FNA is necessary for further definition of inflammatory type. Recheck sonogram is recommended in 3-4 weeks if the liver enzymes remain elevated despite empirical measures.

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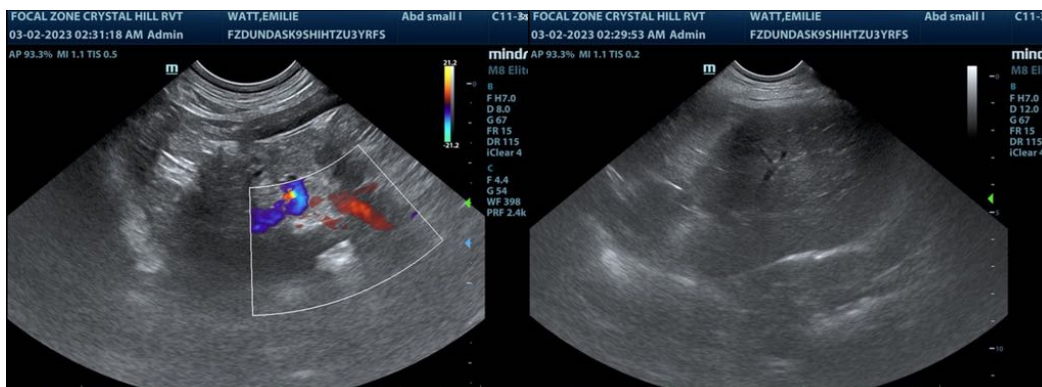
Dr. Middleton

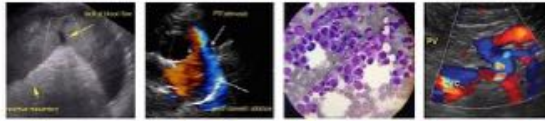
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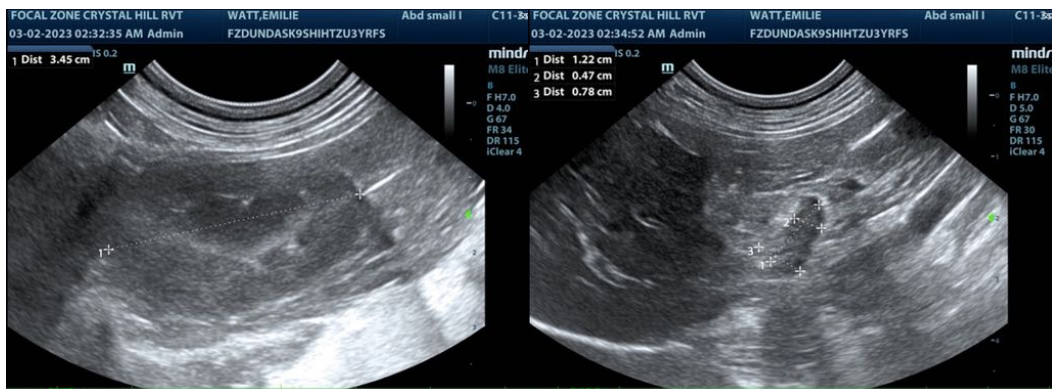
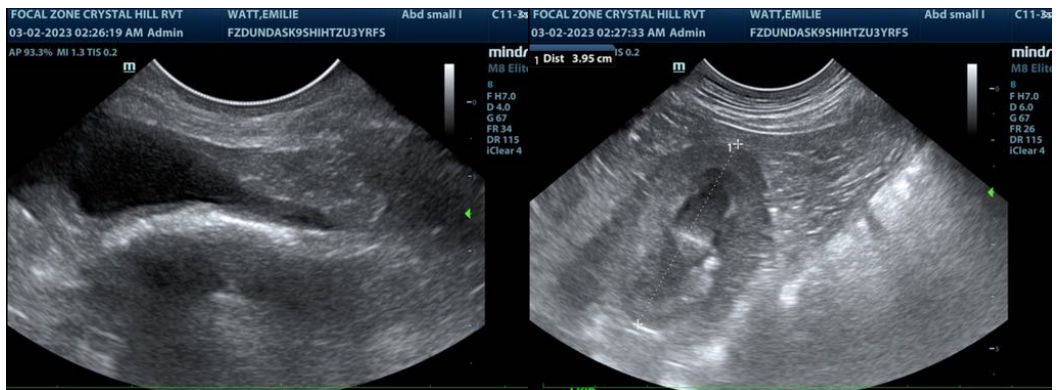
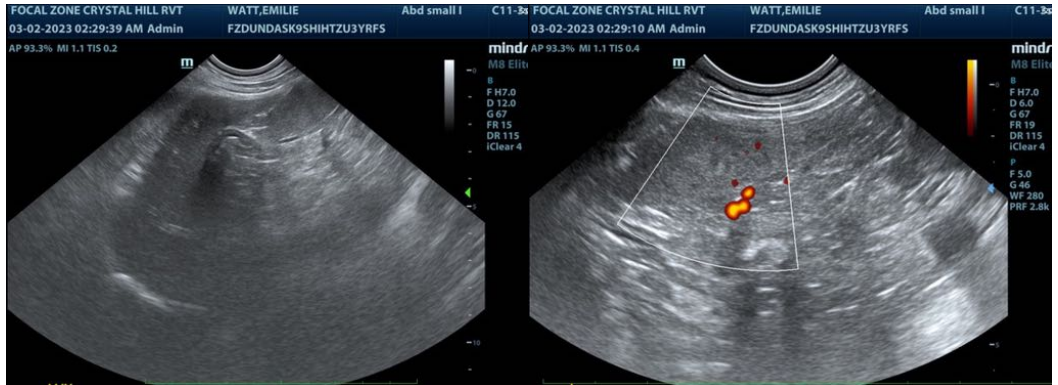
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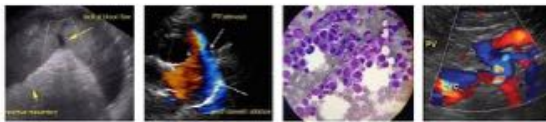
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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.

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Eric.Lindquist@SonoPath.com

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