



PATIENT

Honey Bun Shoeman

SPECIES

Canine

BREED

Shih Tzu

SEX

Spayed Female

AGE

12 Years

WEIGHT

2.3 kg

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

**IMAGING
PERFORMED BY**

Erin Wicks

HOSPITAL NAME

Shores VEC

REFERRING VET

Dr. Lupole

INVOICE

24944

DATE

8/26/21

PRESENTING CLINICAL SIGNS

Presented at our hospital for chronic elevation in liver enzymes, suggested hospitalization per rDVM
Previous Health Concerns: pancreatitis, increased liver values (chronic) Current
Medications/Supplements/OTC: denamarin Appetite/When did they eat last: not eating Diet: vegan
Currently hospitalized on IV dextrose CRI.
Abnormal PE/Chem/CBC/UA Results: Blood work – WBC 18.54, Neut 16.64, Alb 2.1, Glu 45, BUN 72, Creat 1.73; RDVM blood: 7/14/21 ALB 2.3; AG Ratio 0.7; Urea Nit 33; Na130; K 5.8; Chl 93; Amy 16 21; PSL 2670; T4 cortisol #1=8.9; Radiographs- no obvious masses or signs of obstruction, increased gas through intestines, empty stomach

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 1.0 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 noted in both kidneys. The right kidney measured 3.21 cm. The left kidney measured 3.1 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 1.49 cm x 0.44 cm at the cranial pole and 0.49 cm at the caudal pole. The right adrenal gland measured 1.51 cm x 0.44 cm at the cranial pole and 0.42 cm at the caudal 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 were noted.

Liver

The **liver** presented mild coarse architecture. The gallbladder and common bile duct were unremarkable. Occasional parenchymal cysts noted. Increased portal markings noted.

Gastrointestinal

The **stomach** revealed minor retention of ingesta. Mucosal fogging noted in portions of small intestine, suggestive for lymphangiectasia or protein losing enteropathy. If no significant proteinuria is present, then treatment for PLE indicated.



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Pancreas

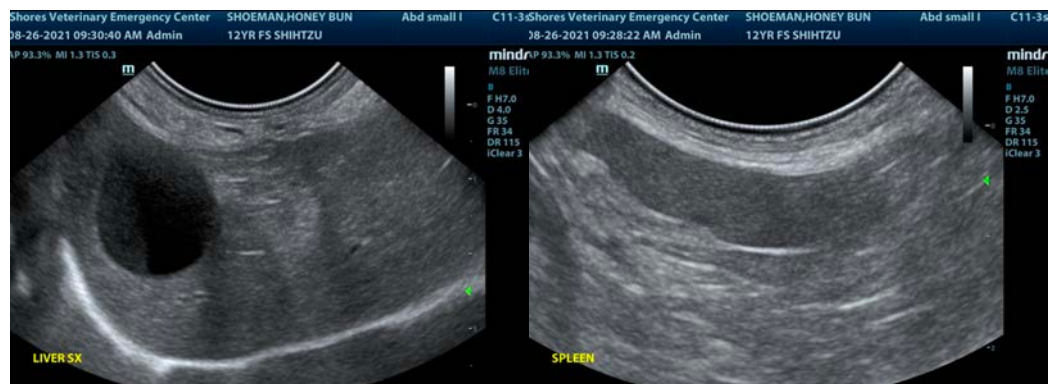
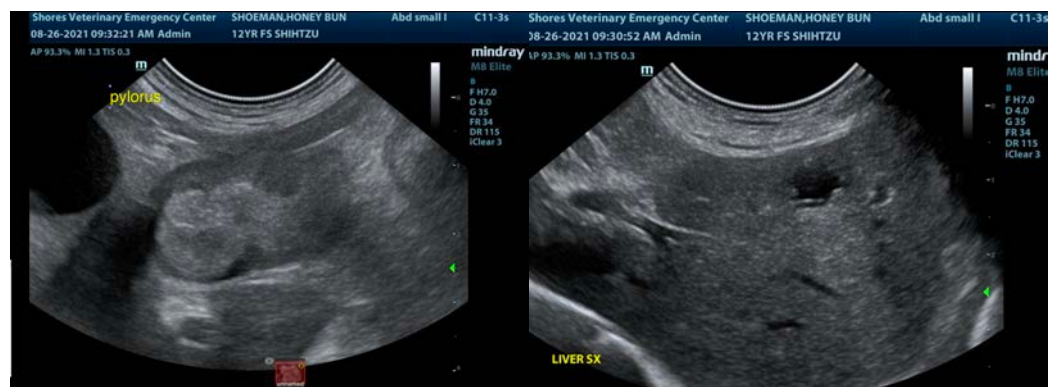
The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxyphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

ULTRASONOGRAPHIC FINDINGS

- Non-specific inflammatory hepatopathy
- Suspect protein losing enteropathy
- Renal calculi, non-specific

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The kidneys appear approximately 50-60% compromised.





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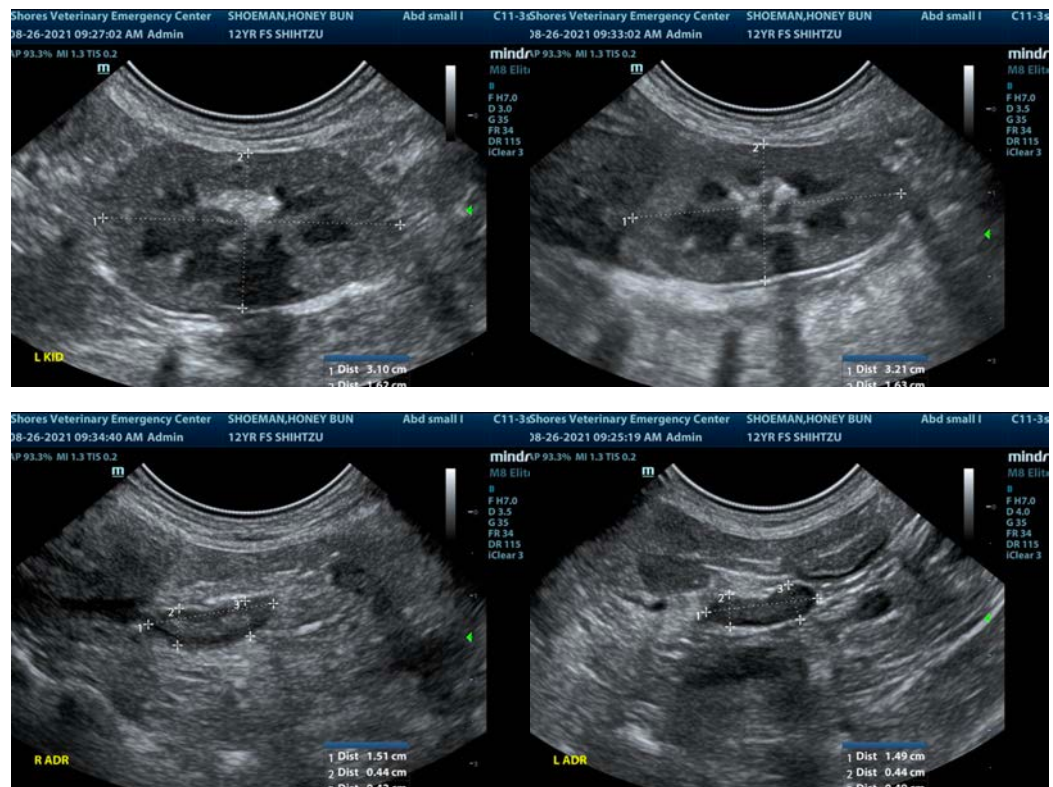
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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