



**PATIENT**

Buddy Nunemaker

**SPECIES**

Canine

**BREED**

Shih Tzu

**SEX**

Netuered male

**AGE**

9 years

**WEIGHT**

15.6 lbs

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Gaynor

**HOSPITAL NAME**

Lambertville VC

**REFERRING VET**

Dr. DeGrande

**INVOICE**

42881

**DATE**

11/30/22

**PRESENTING CLINICAL SIGNS**

History: Buddy presented on 11/29/22 for a second opinion an chronic elevated liver values. O notes polydipsia at home. PE was unremarkable other then a Grade 2/6 heart murmur. Buddy has been on Liver Support Chews since 9/29/22.  
Abnormal PE/Chem/CBC/UA Results: Please see attached results from 11/29/22

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The **bladder** in this patient was mildly thickened with slight echogenic mural changes. No calculi or masses were noted. Slight micropolypoid changes were noted. This is a frequent finding in older animals and may be linked to a history of chronic urinary tract infection or active urinary tract infection. Urinalysis would be recommended with culture if any evidence of inflammatory sediment is present. The region of the trigone and visible pelvic urethra 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 right kidney measured 4.7 cm. The left kidney measured 4.5 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 0.69 cm and 0.51 cm at the cranial pole. The right adrenal gland measured 1.42 x 0.43 cm at the caudal pole and 0.37 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** revealed minor coarse architecture with occasional, hypoechoic non-disruptive nodule noted. The gallbladder and common bile duct were unremarkable.



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**Gastrointestinal**

Buddy Nunemaker

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.

**SEX**

Netuered male

**ULTRASONOGRAPHIC FINDINGS**

Inflammatory hepatopathy, nodular hyperplasia liver pattern.

**AGE**

9 years

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**WEIGHT**

15.6 lbs

Given the liver profile and the nodular changes I cannot rule out microabscessation causing the nodular changes in the liver. FNA of the general parenchyma and the nodules is recommended with cytology and culture. The possibility of neoplasia is minimal.

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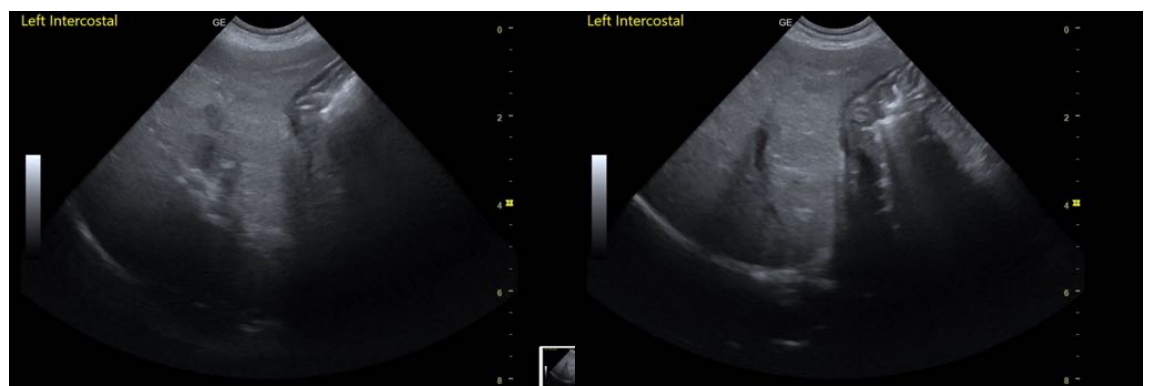
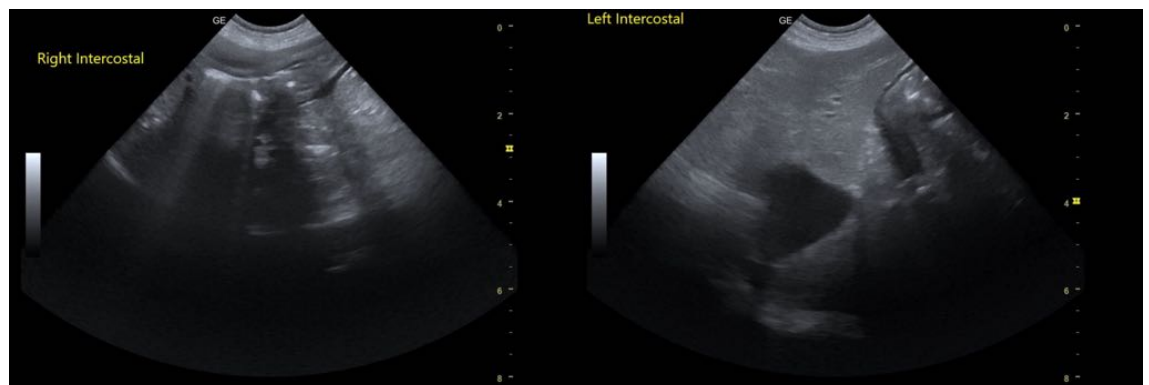
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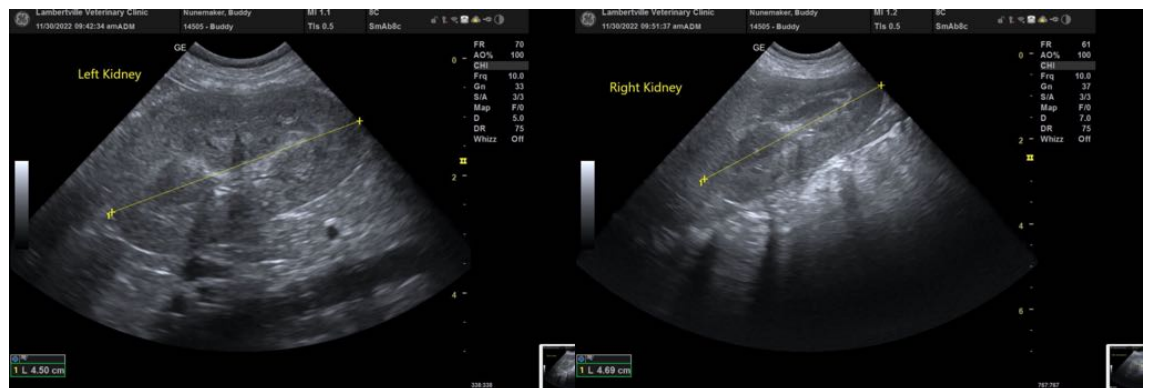
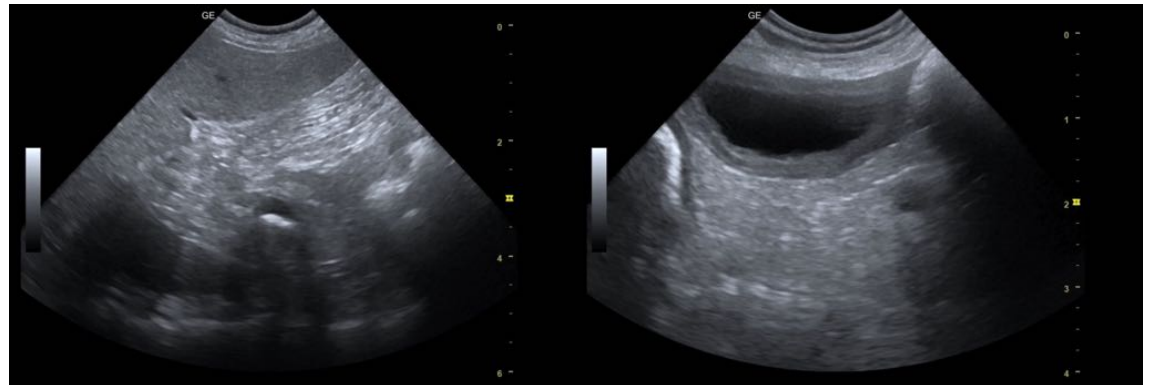
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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**  
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