



**PATIENT**

Little Bit Houston

**SPECIES**

Canine

**BREED**

Beagle Mix

**SEX**

Spayed female

**AGE**

13 years

**WEIGHT**

53 lbs

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Byrnes

**HOSPITAL NAME**

Stewart's Mountain  
View AH

**REFERRING VET**

Byrnes Veterinary  
Relief Service

**INVOICE**

42342

**DATE**

11/2/22

**PRESENTING CLINICAL SIGNS**

History: History of small amount of weight loss, decreased appetite and hepatomegaly. P roams and neighbors may be feeding pet. P has increased respiratory effort. Chest x-rays wnl  
Abnormal PE/Chem/CBC/UA Results: BUN 44 (10-27) Alkp 668 (10-150)

**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. Occasional cortical cyst was 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 right adrenal gland measured 0.97 cm at the caudal pole and 0.82 cm at the cranial pole. The left adrenal gland measures 0.6 cm.

**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. An occasional, hyperechoic inclusion was noted. This is consistent with mineralization or hemosiderin. 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** was uniformly swollen. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. Occasional hyperechoic and hypoechoic nodule was noted. The hypoechoic nodule in the cranial liver and measured 1.5 cm. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia. Minor gallbladder debris was noted as well as slight striating bile.



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**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.

**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 subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

**ULTRASONOGRAPHIC FINDINGS**

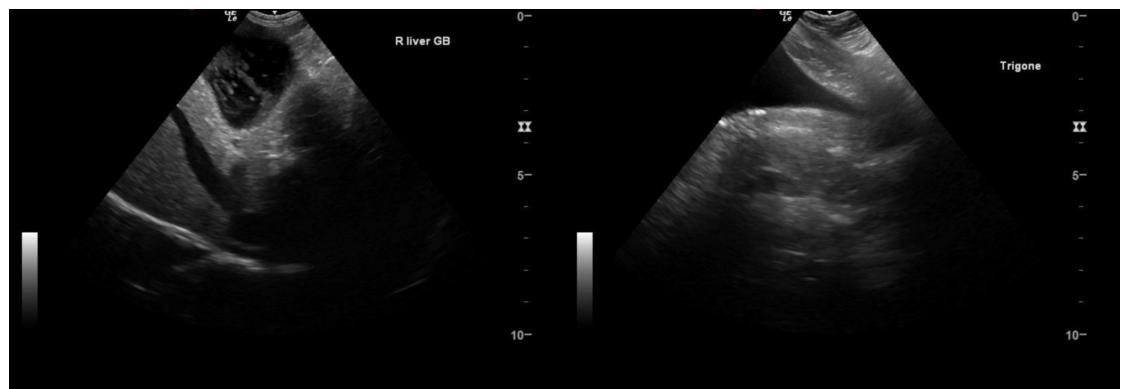
Largely age related abdominal changes with benign hepatopathy. Subjectively benign, hepatic nodular changes.

Minor splenic inclusions, consistent with mineralization.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There was no evidence of significant disease. Adrenal glands measure normal for this patient. The cause of poor appetite and weight loss is unclear and not evident in the abdomen. The kidneys appear subjectively 40-50% compromised, yet not end stage. FNA of the liver nodules can be considered; however, primarily the hypoechoic nodule is more interesting. The hyperechoic nodule is most consistent with lipogranuloma. The hypoechoic nodule is most consistent with nodular hyperplasia with a minor potential for underlying neoplasia.

Maldigestion panel, three view chest radiographs and full CNS examination is recommended to examine for occult disease that could be responsible for the weight loss. Evaluation for competitive eating environments should also be considered.





**PATIENT**

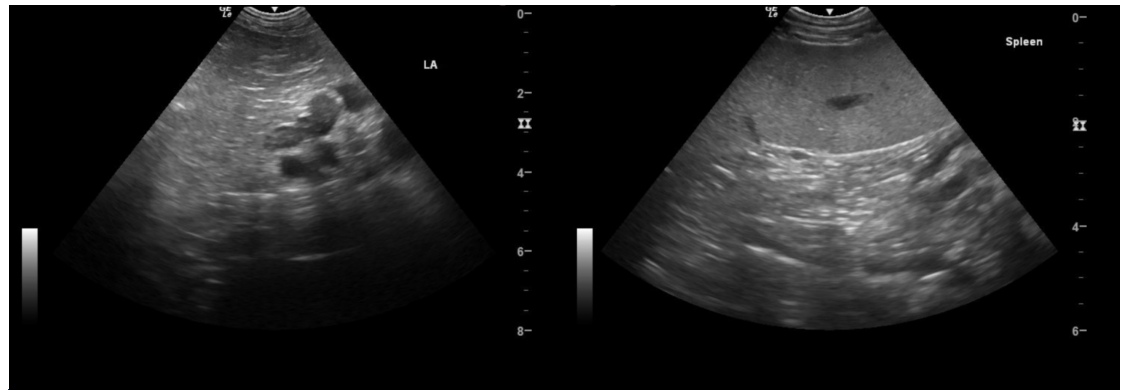
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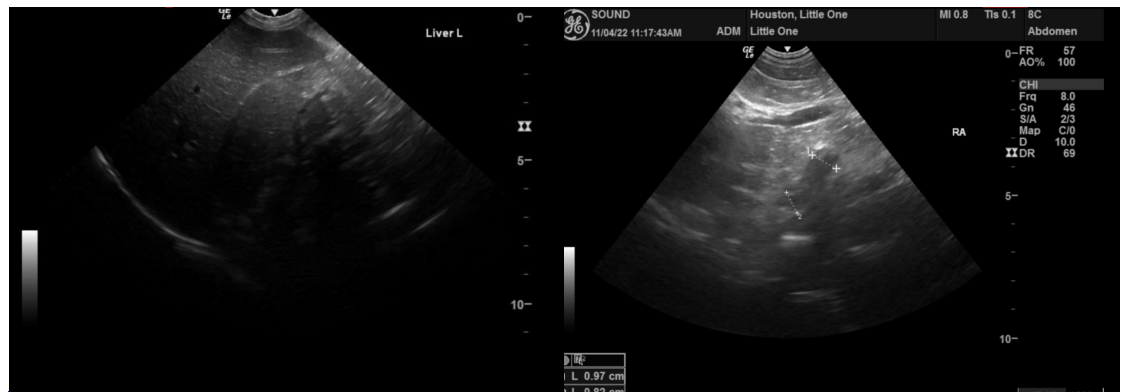
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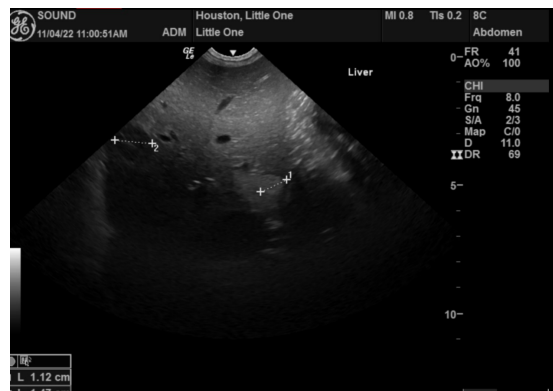
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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  
info@SonoPath.com