

**DATE PRESENTING CLINICAL SIGNS**

10/12/22

PUPD, reduced appetite, regenerative anemia, cholestatic liver enzyme elevation, hepatomegaly, chronic diarrhea, seizures, possible GI bleeding. brief US of liver at rDVM showed "cystic lesions" (cavitated nodules vs dilated bile ducts vs other) PE--slightly muscle wasted, alopecia (dorsum, flanks, lateral thighs, perineum) with lichenification in some areas and thin skin/striae on ventrum. Marked hepatomegaly, grade 3/6 heart murmur.

**PATIENT**

Bella Glisson

**SPECIES**

Canine

**BREED**

Boston Terrier

**SEX**

Spayed Female

**AGE**

3/9/09

**WEIGHT**

9.9 Pounds

**INTERPRETED BY**

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**IMAGING PERFORMED BY**

Andi Parkinson RDMS

**HOSPITAL NAME**

Nexus Vet Specialists

**REFERRING VET**

Dr. Steele

**INVOICE**

42008

Current Medications: Apoquel 5.4mg once daily. Recently discontinued fluoxetine. Recently completed Clavamox

Lab Results: 9/23: HCT 26% (norm, hypo, regenerative w/192K retics), neuts 17.5K w/390 bands, PLT 650K. BUN 48 w/normal creat 0.7, phos 7.2, K 6.3, ALT 281, ALP 1663, GGT 61. 10/11: NH3 normal at 4

Radiographs: Thoracic rads 10/11: Mild cardiomegaly (L sided)

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The left kidney has a normal shape and size (5.13 cm) with small non-obstructive mineralizations. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney has a normal shape and size (5.53 cm) with small non-obstructive mineralizations. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is normal/borderline large measuring 0.60 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is somewhat abnormal in appearance in that it is hypoechoic and has some pinpoint mineralizations. No mass effect is visualized.

The right adrenal gland is borderline large measuring 0.87 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is somewhat abnormal in appearance in that it is hypoechoic and has some pinpoint mineralizations. No mass effect is visualized.

**Spleen**

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

**Liver**

The liver is large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is a large cystic lesion on the right side of the liver measuring 5.18 cm x

4.21 cm. Additionally, there is a hyperechoic, diffusely cystic mass lesion in the mid liver measuring 9.0 cm x 5.31 cm.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

### ***Gastrointestinal***

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall thickness is moderately increased. Bowel loops follow a typical curvilinear path. Some areas have reduced detail of wall layering. Duodenum wall measured 0.59 cm. Jejunum wall measures 0.43 cm. Significant mucosal speckling is noted. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

### ***Pancreas***

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

### ***Free Abdomen***

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

## **ULTRASONOGRAPHIC FINDINGS**

- Borderline large, hypoechoic, mineralized adrenal glands – The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended.
- Large, heterogeneous liver with a hyperechoic cystic mass effect – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. The appearance of the hyperechoic cystic lesion trends towards a benign lesion, but it is large, and an underlying neoplasm cannot be ruled out.
- Moderate gallbladder debris – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Significant ultrasonographic findings include large, hypoechoic adrenal glands with small mineralizations, a likely benign hepatic cyst, a hyperechoic cystic hepatic mass lesion, and gallbladder debris.

Further diagnostic and therapeutic recommendations regarding this exam to be made by Dr. Cara Steele.





**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.

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