



PATIENT	PRESENTING CLINICAL SIGNS
Brewster Warner	History: Gunner is currently on Galliprant and Gabapentin and Denamarin. He took Rimadyl until 9/13/22 when routine tracking labs revealed AST and ALP elevations. On 10/6/22 the AST had continued to rise, prompting the ultrasound and Bile Acid testing.
SPECIES Canine	Abnormal PE/Chem/CBC/UA Results: PE: Stage I dental disease, 2 lipomas and one skin tag, Sclerosis normal for age, Osteoarthritis with general muscle atrophy of limbs. Labs: 9/13/22: ALP 1431 U/L, AST 70 U/L 10/5/22: ALP 1321 U/L, AST 118 U/L
BREED Labrador Retriever	ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN <i>Urinary System</i>
SEX Neutered male	Urinary bladder is adequately distended with primarily anechoic contents and occasional echogenic non-shadowing debris. Apical urinary bladder wall is diffusely thick (0.66 cm). Mucosa is hyperechoic and irregular. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface.
AGE 13 years	Prostate (neutered) is normal in size, echotexture and echogenicity for a neutered male. Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The left kidney measured 7.83 cm and the right kidney measured 6.84 cm.
WEIGHT 82.2 lbs	
INTERPRETED BY Beth Johnson, DVM DACVIM	<i>Adrenal Glands</i> Left adrenal gland is normal in size (2.9 cm long, 0.61 cm at cranial pole and 0.84 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal. Right adrenal gland is normal in size (2.2 cm long, 0.42 cm at cranial pole and 0.38 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.
IMAGING PERFORMED BY Dr. Anderson	
HOSPITAL NAME Elizabeth AH	<i>Spleen</i> Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). A hypoechoic to anechoic nodule was noted resulting in a slight splenic bulge was noted and measured 1.0 x 1.2 cm . Splenic vasculature appears normal.
REFERRING VET Dr. Anderson	
INVOICE 40059	<i>Liver</i> Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. A 5.0 cm in diameter mixed hypoechoic to anechoic/cavitated partially
DATE 10/12/22	



PATIENT	mineralized mass was noted in the left caudal liver. Visible vasculature and biliary tree appear normal without distension or congestion.
Brewster Warner	
SPECIES	Gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.
Canine	
BREED	<i>Gastrointestinal</i>
Labrador Retriever	The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.
SEX	The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.
Neutered male	The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.
AGE	<i>Pancreas</i>
13 years	The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.
WEIGHT	
82.2 lbs	
INTERPRETED BY	<i>Free Abdomen</i>
Beth Johnson, DVM DACVIM	There is no evidence of free peritoneal effusion noted in these images.
	The medial iliac lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.
IMAGING PERFORMED BY	ULTRASONOGRAPHIC FINDINGS
Dr. Anderson	Primary Findings
HOSPITAL NAME	<ul style="list-style-type: none"> • Mixed, hypoechoic partially mineralized liver mass. This is most concerning for infiltrative neoplasia such as primary liver hepatocellular carcinoma versus potentially sarcoma versus other. Benign lesion such as hematoma, abscess, granuloma, etc. cannot be definitively ruled out, but is considered less likely. • Hypo to anechoic splenic nodule – likely represents a benign lesion such as a cyst, hematoma, nodular hyperplasia, extramedullary hematopoiesis, etc., however while considered less likely, infiltrative neoplasia cannot be ruled out, but is considered less likely.
Elizabeth AH	
REFERRING VET	
Dr. Anderson	
INVOICE	Secondary Findings
40059	<ul style="list-style-type: none"> • Age related renal changes.
DATE	
10/12/22	



PATIENT

Brewster Warner

- **Chronic Cystitis** - Urinary bladder wall changes are most consistent with chronic cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely give the location and diffuse nature of the changes.
- **Reactive medial iliac lymph nodes.**

SPECIES

Canine

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

BREED

Labrador Retriever

FNA of the liver mass for both cytology as well as culture and sensitivity if indicated based on cytology results is recommended.

SEX

Neutered male

Urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

AGE

13 years

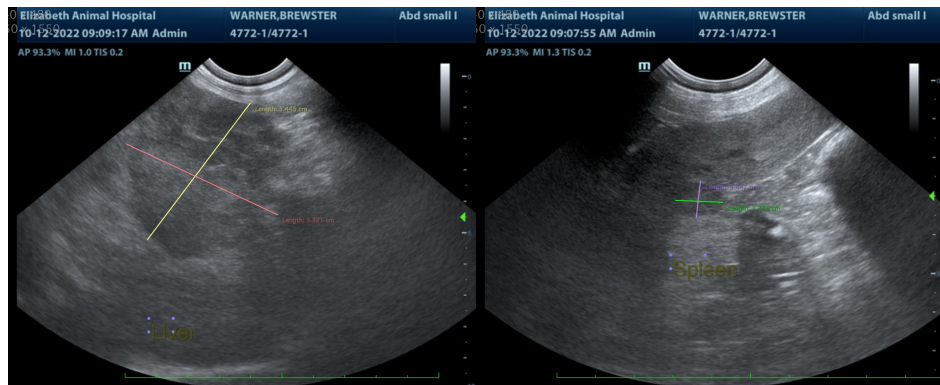
Alternatively, if a more aggressive therapeutic/diagnostic approach is elected exploratory laparotomy for excisional biopsies/mass removal can be considered. The appearance of the location of the mass in these images appears resectable. However, a presurgical, staging abdominal CT scan can be considered for additional planning.

WEIGHT

82.2 lbs

INTERPRETED BY

Beth Johnson, DVM
DACVIM

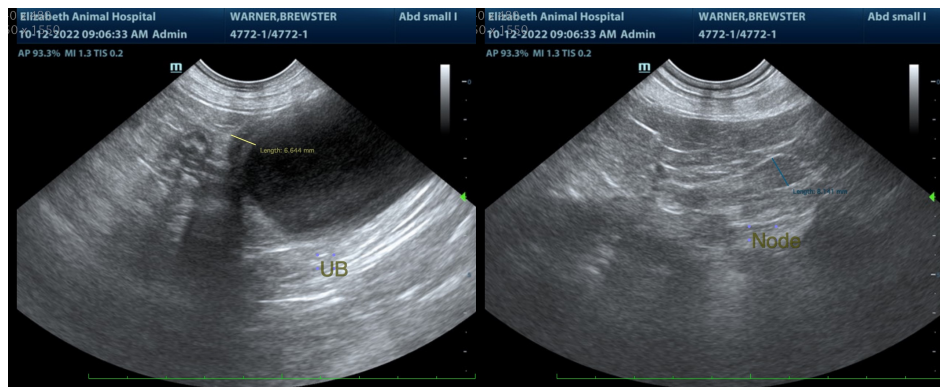


IMAGING PERFORMED BY

Dr. Anderson

HOSPITAL NAME

Elizabeth AH



REFERRING VET

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PATIENT

Brewster Warner

SPECIES

Canine

BREED

Labrador Retriever

SEX

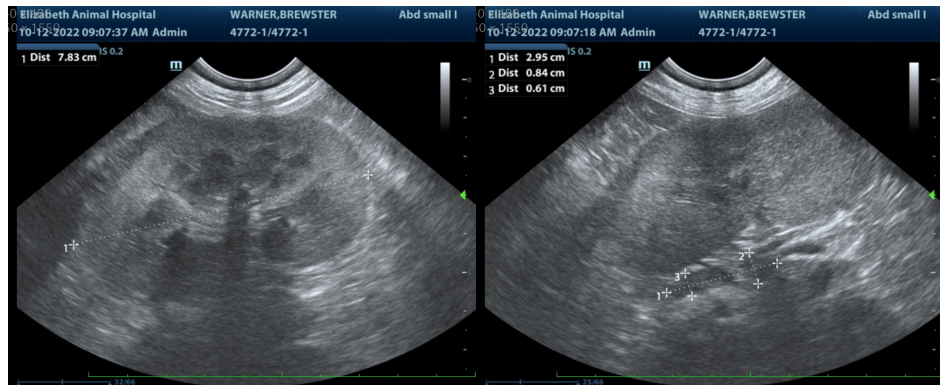
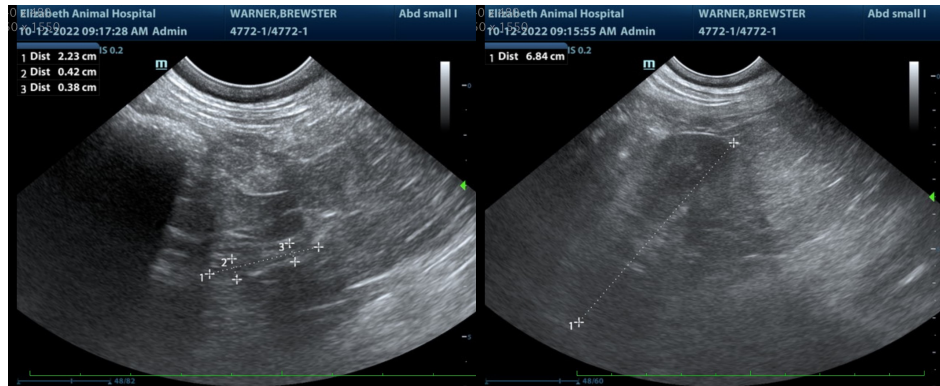
Neutered male

AGE

13 years

WEIGHT

82.2 lbs



INTERPRETED BY

Beth Johnson, DVM
DACVIM

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.

IMAGING PERFORMED BY

Dr. Anderson

Beth Johnson, DVM DACVIM

HOSPITAL NAME

Elizabeth AH

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REFERRING VET

Dr. Anderson

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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.