



**PATIENT**

Boog Adams

**SPECIES**

Canine

**BREED**

Golden Retriever X

**SEX**

Neutered Male

**AGE**

2 Years 6 Months

**WEIGHT**

53.8 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Carissa Rhoades

**HOSPITAL NAME**

Elizabeth AH

**REFERRING VET**

Dr. Leon Anderson

**INVOICE**

40713

**DATE**

8/24/22

**PRESENTING CLINICAL SIGNS**

He was seen for a mass And lethargy on July 25th. Labs at that time revealed a severe thrombocytopenia and leukocytosis. Doxycycline in immune suppressive doses of prednisone were started. The thrombocytopenia has resolved, but the dog remains lethargic, has diarrhea, and continues to have a high white blood cell count. ultrasound of the abdomen and x-rays of the chest were done today to try to find why there's such a demand for white blood cells, And why we remain lethargic.

Abnormal PE/Chem/CBC/UA Results: PE: No pred given this morning. Stage I dental disease. Pale sclera still. Quiet. Pyoderma over rump area- clipped. Remainder WNL. NO RESENT LABS

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The area of the prostate is examined without evident pathology.

The right kidney is normal in size (7.38 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

The left kidney is normal in size (6.26 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**Adrenal Glands**

Adrenal glands are small (flattened contour). Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The left adrenal gland measures 2.83 cm long x 0.57 cm at the cranial pole and 0.52 cm at the caudal pole. The right adrenal gland measures 1.78 cm long x 0.76 cm at the cranial pole and 1.0 cm at the caudal pole.

**Spleen**

The 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). No focal nodules or masses are observed. Splenic vasculature appears normal.

**Liver**

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The 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.

**Gastrointestinal**

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta.



**PATIENT**

Boog Adams

There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

**SPECIES**

Canine

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). 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.

**BREED**

Golden Retriever X

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

***Pancreas***

**SEX**

Neutered Male

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

***Free Abdomen***

**AGE**

2 Years 6 Months

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

53.8 Pounds

- **Hyperechoic hepatomegaly** - This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible, but considered less likely.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

- **Flat adrenal glands** - Consistent with this patient's steroid history.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There is no ultrasonographically visible explanation for the patient's persistent leukocytosis or lethargy at this time. Recommendations include:

**IMAGING PERFORMED BY**

Carissa Rhoades

1. Immunosuppression with Prednisone can cause a marked leukocytosis from the Prednisone. Therefore, this patient could have had a leukocytosis due to the immune mediated condition originally, and the leukocytosis has persisted or potentially even progressed secondary to steroid administration. Therefore, if the thrombocytopenia has resolved, recommendations are to taper the Prednisone and monitor the leukocyte count for improvement. If the thrombocyte count requires continued immunosuppression, recommendations are to add a second immunosuppressant on so that Prednisone can be safely tapered.

**HOSPITAL NAME**

Elizabeth AH

**REFERRING VET**

Dr. Leon Anderson

2. Given the reported lethargy and pale mucous membranes on physical exam, rechecking lab work to check for concurrent or newly emerging anemia is recommended. If anemia is not present, recommendations are as described in the 1<sup>st</sup> recommendation, as chronic immunosuppressant doses of Prednisone can also result in lethargy, especially, subjectively (in my clinical experience) in large breed dogs.

**INVOICE**

40713

3. If clinical signs persist beyond Prednisone tapering, comprehensive infectious disease workup is recommended, followed ultimately by bone marrow cytology if an answer isn't obtained sooner.

**DATE**

8/24/22



**PATIENT**

Boog Adams

**SPECIES**

Canine

**BREED**

Golden Retriever X

**SEX**

Neutered Male

**AGE**

2 Years 6 Months

**WEIGHT**

53.8 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Carissa Rhoades

**HOSPITAL NAME**

Elizabeth AH

**REFERRING VET**

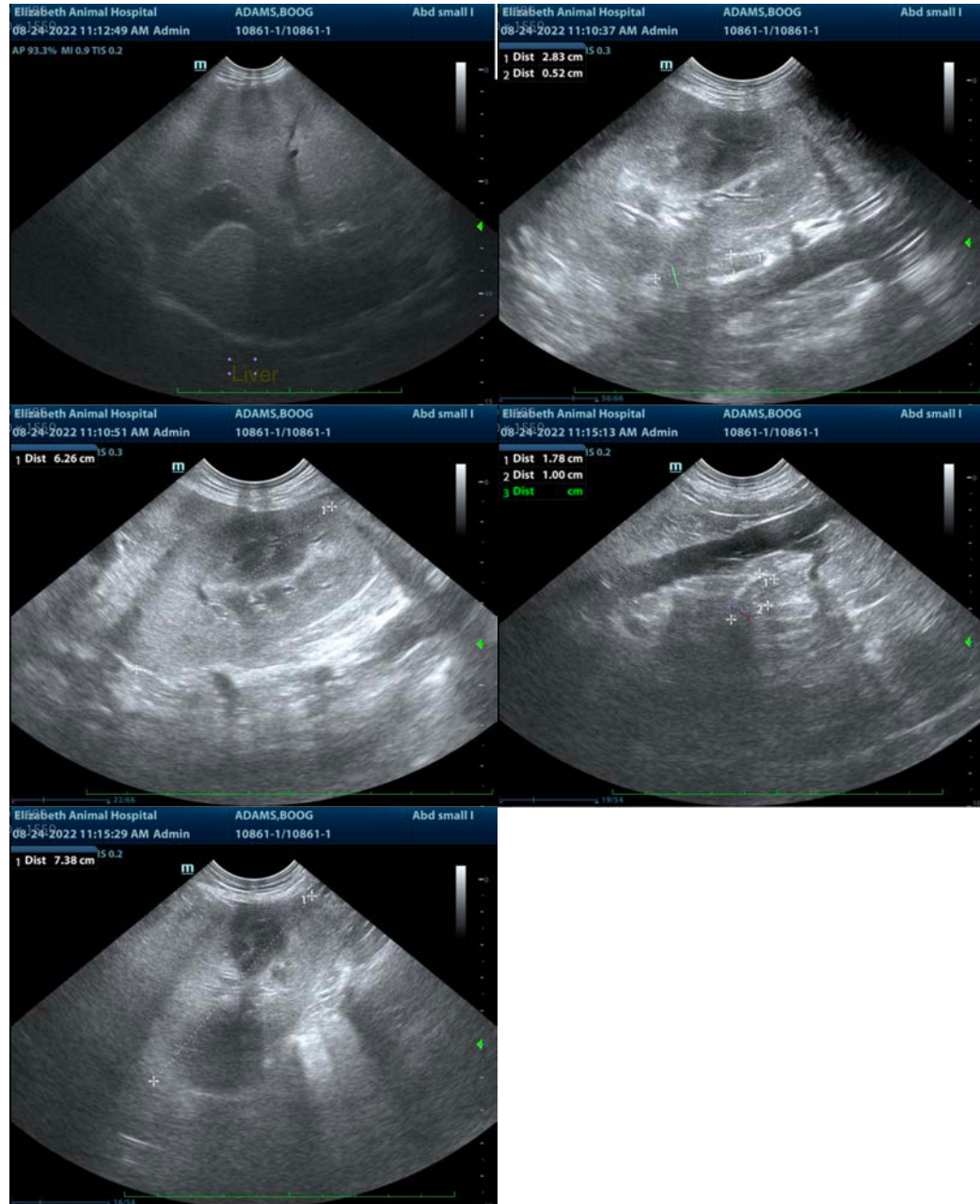
Dr. Leon Anderson

**INVOICE**

40713

**DATE**

8/24/22



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.

**Beth Johnson, DVM, DACVIM**  
Beth.Johnson@sonopath.com