

**PATIENT**

Jagger Tune

**SPECIES**

Canine

**BREED**

Golden Retriever

**SEX**

MN

**AGE**

12 years 7 months

**WEIGHT**

27.5 kg

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING  
PERFORMED BY**

Loetitia Saint-Jacques,  
LVT

**HOSPITAL NAME**

Truckee Meadows  
Veterinary Hospital

**REFERRING VET**

Dr. Rachel Kuester

**INVOICE**

11135

**DATE**

1/15/2026

**PRESENTING CLINICAL SIGNS**

Presented 1/5/26 for acute onset of anxiety, vomiting and diarrhea. PE unremarkable. Labs submitted. Labs showed the following: hyperproteinemia hepatopathy (elevated ALT, ALP) hyperphosphatemia Mild total hypercalcemia hypercholesterolemia leukocytosis neutrophilia monocytosis bilirubinuria  
Historic Problem List: SPLENIC HEMATOMA AND LEIOMYOMA - splenectomy performed 10/2024  
Moderate LS spondylosis (7/2022) right hip subluxation, without evidence of significant osteoarthritis. While this could be associated with mild subclinical unilateral hip dysplasia, the possibility of recent hip injury, such as joint capsular injury, should be on the differential (7/2022)  
Working diagnosis DDx hepatitis, cholangiohepatitis, neoplasia, toxin exposure MEDS\_ Denamarin  
Advanced Chews Lg Dog started 1/6/26. Trazodone 200-250 mg PRN, Fortiflora started 1/5/26, Metronidazole 250 mg 1.5 T PO BID x7d started 1/6/26.

Abnormal PE/Chem/CBC/UA Results: Senior Profile 1 TP 8.2 (5-7.4) GLOB 4 (1.6-3.6) ALT 498 (12-118) ALP 527 (5-131) PHOS 6.9 (2.5-6) Ca 11.5 (8.9-11.4) CHOL 659 (92-324) WBC 19.3 (4-15.5) NEU 16212 (2060-10600) MONO 1737 (0-840) UA: USG 1.058, 3+ protein, 2+ bilirubin UPC 0.3 (<0.5).

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is adequately 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.

Prostate 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. Left kidney measures 6.87 cm, and the right kidney measures 5.38 cm.

**Adrenal Glands**

The right adrenal gland is normal in size (0.8 cm at cranial pole and 0.6 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

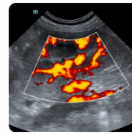
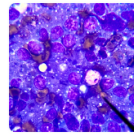
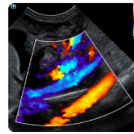
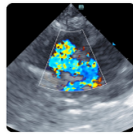
The left adrenal gland is normal in size (1.0 cm at cranial pole and 0.79 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

**Spleen**

The spleen has previously been removed.

**Liver**

Liver is subjectively enlarged (swollen contour) with a diffusely mildly coarse architecture and subtly increased portal markings. Mildly mixed echogenic changes are noted diffusely. Additionally, in the mid to right liver is an approximately 1.8 cm x 3.1 cm in size, mildly heterogenous, primarily hyperechoic mass. Additionally, in the mid liver is an approximately 2.5 cm x 3.9 cm hypoechoic nodule/mass. Visible vasculature and biliary tree appear normal without distension or congestion.



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

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.

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

**Pancreas**

The observed pancreas appears appropriately isoechoic to surrounding omental fat. The capsule is mildly irregular in shape. Parenchyma is mildly heterogenous and coarse. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

**Free Abdomen**

There is no visible free peritoneal effusion noted in these images.

Medial iliac and cranial abdominal/portal 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.

**PRIMARY FINDINGS**

- An obvious cause for the mild to moderate liver changes is not identified in these images. Microscopic disease such as Leptospirosis, bacterial cholangiohepatitis, chronic active hepatitis, copper-associated hepatotoxicity, other hepatotoxicity, other reactive hepatopathy, infiltrative neoplasia (considered unlikely), etc. cannot be definitively ruled out. Additionally, the more discrete lesions could represent nodular hyperplasia, extramedullary hematopoiesis, chronic inflammatory disease including the differentials described above. Although infiltrative neoplasia causing either one and/or both nodules including hepatoma/adenoma, hepatocellular carcinoma, round cell neoplasia, other can't be ruled out without tissue sampling.
- Patient's spleen has previously been removed.
- Mildly to moderately reactive medial iliac and cranial abdominal/portal lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely.

**SECONDARY FINDINGS**

- Pancreatic age-related remodeling/Chronic pancreatitis – Mild irregularities are consistent with benign age-related change. Low-grade smoldering chronic pancreatitis cannot be ruled out and should be suspected in the face of appropriate clinical signs.
- Age related kidney changes.



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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given patient's mild hypercalcemia, if it's persistent following rehydration, a malignancy panel (PTH, PTHrP, iCa) to Michigan State College of Veterinary Medicine is recommended for further investigation of the reported hypercalcemia.

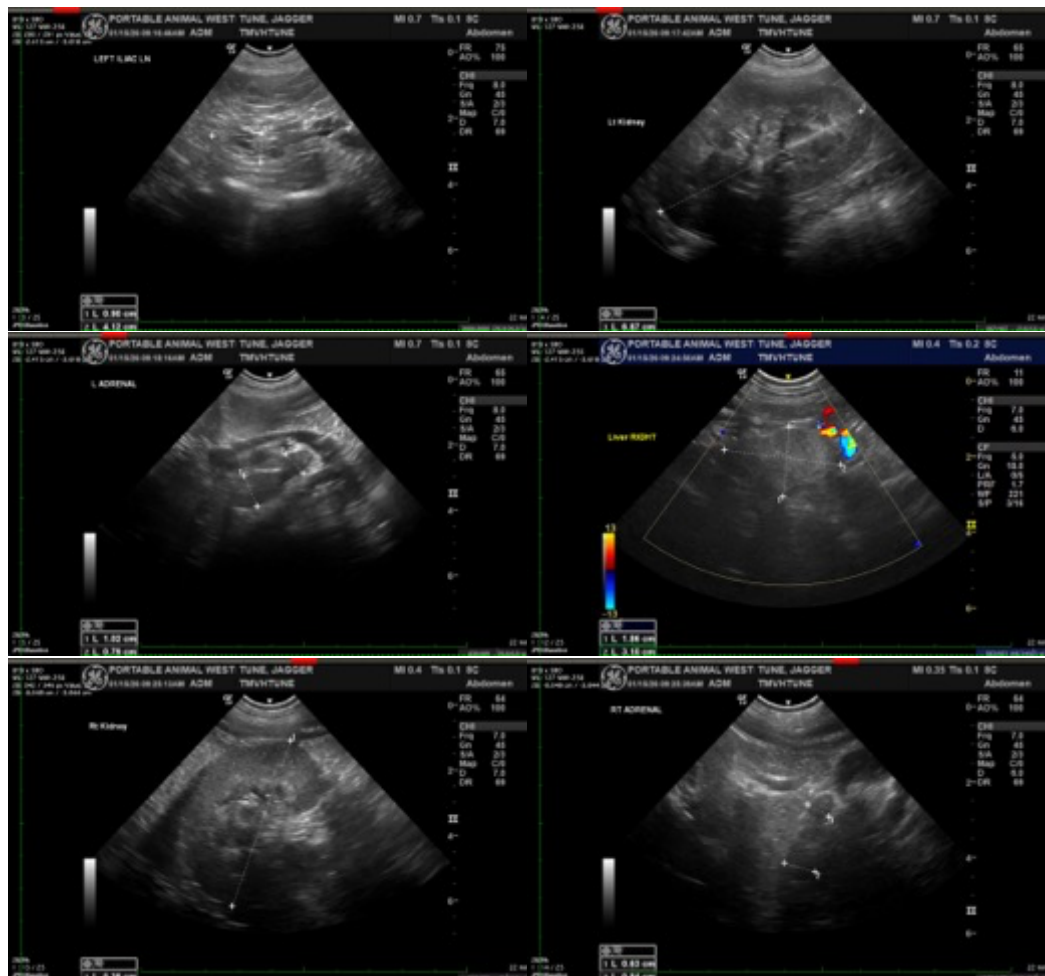
Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

In the meantime, tissue sampling can be considered beginning with fine needle aspirates of the liver as well as any enlarged lymph nodes, that can safely be reached, if patient's coagulation status is appropriate. The lymph nodes may not be large enough to sample.

Pending results of above, bile acids could be considered if patient's total bilirubin is not increased.

Infectious disease testing could be considered.

Other than supportive/symptomatic medical management of clinical signs, further diagnostic and treatment recommendations are largely dependent on results of the above.



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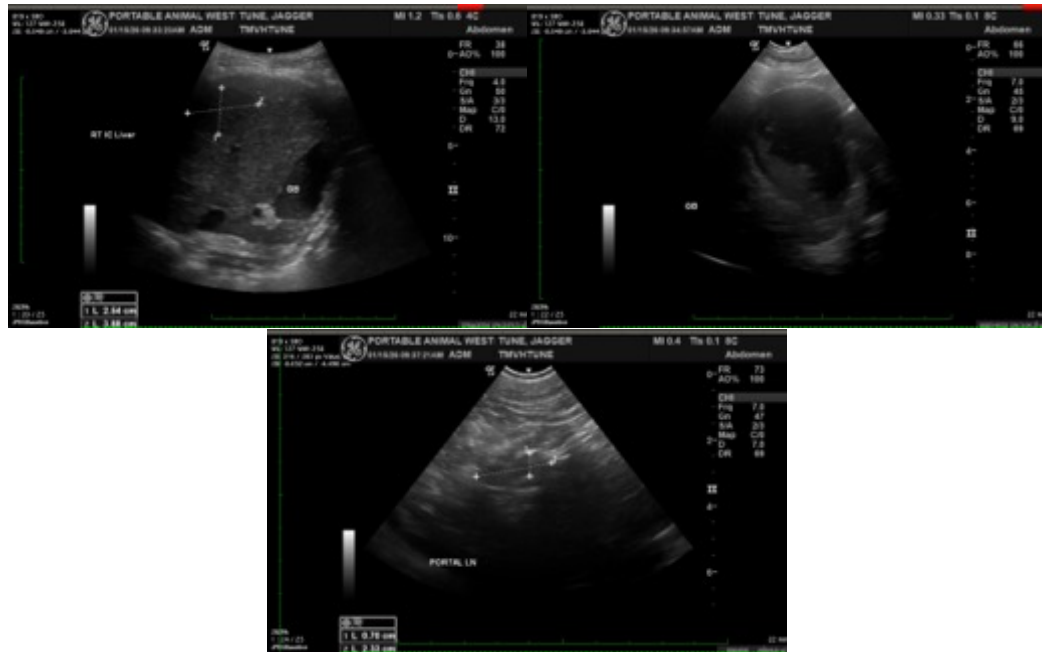
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Beth Johnson, DVM, DACVIM**  
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