PATIENT

Reggie Holm

SPECIES

Canine

BREED

Schnauzer Mix

SEX

MN

AGE

12 years

WEIGHT

5.7 kg

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Loetitia Saint-Jacques, LVT

HOSPITAL NAME

Incline Veterinary Hospital

REFERRING VET

Dr. Sovik Kateryna

INVOICE

11754

DATE

4/20/2026

PRESENTING CLINICAL SIGNS

O wants to do a dental to clean his remaining 13 teeth. Reviewed 2023 ultrasound results showing suspected diffuse hepatopathy with differentials including inflammatory disease, chronic hepatitis, and bacterial cholangiohepatitis. Previous Denamarin trial unsuccessful due to vomiting with no improvement in liver values.

Abdominal ultrasound with internal medicine consultation to assess: Current liver status compared to 2023 findings. Safety for anesthesia and NSAID use. Potential gallbladder involvement given GGT elevation. Need for Ursodiol therapy if cholestasis present

Abnormal PE/Chem/CBC/UA Results: Grade 2/6 heart murmur auscultated; this is a new finding not present at last year's exam. -Discussed blood work results showing CBC within normal limits with no anemia, dehydration, or infection signs. Platelets normal, providing clearance for dental procedure. Pancreatitis screening (CPL) negative. 4Dx test negative for Ehrlichia, Lyme disease, and anaplasmosis. Glucose, kidney function, electrolytes, and thyroid within normal limits. Liver enzymes significantly elevated compared to previous year: ALT increased from 367 to 529 mg/dL (normal 10-125), ALP increased from 1,033 to 1,853 (normal 23-200), GGT elevated from 10 to 14 (normal 0-11). Blood Pressure 1: 154/105 (122) 2: 180/113 (141) 3: 169/106 (131) 4: 171/106 (139) 5: 150/86 (112) liver biopsies done in 2022 inconclusive.

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 mineral or infarcts observed. Trace pyelectasia is noted bilaterally. Left kidney measures 4.2 cm, and the right kidney measures 4.3 cm.

Adrenal Glands

The right adrenal gland is normal in size (0.85 cm at cranial pole and 0.58 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.48 cm at cranial pole and 0.54 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Spleen

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). Multifocal well-demarcated hyperechoic homogenous nodules are noted. Splenic vasculature appears normal.

Liver

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Liver is subjectively enlarged with mildly irregular margins. Parenchyma is moderately heterogenous characterized by multiple ill-defined mildly heterogenous, largely hyperechoic nodules/masses throughout the parenchyma. One of the masses in the caudal mid to left liver is slightly more hypoechoic than the other masses. One in the mid liver adjacent to the gallbladder is slightly more heterogenous than the other lesions. In general, the primarily hyperechoic densities are all between 1.5 cm and 2.5 cm in size. Additionally, adjacent to the liver is an anechoic suspect cystic density.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

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. There is no evidence of obstruction or foreign material noted. 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 mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction or foreign material noted.

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.

There is no apparent pathologic lymphadenopathy noted in these images.

PRIMARY FINDINGS

- The liver nodules/masses are subjectively progressive in size, number, and overall, more heterogenous appearance compared to the previous report. Having said that, differentials still include both benign inflammatory disease as well as infiltrative neoplastic lesions that can't be differentiated without tissue sampling.
- Moderate gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

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- 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.

SECONDARY FINDINGS

- Hyperechoic splenic nodules – most consistent with benign myelolipomas. Other differentials such as fibrosis or calcification caused by old hematomas or infarcts, chronic inflammation, granulomatous disease or metastatic disease cannot be ruled out, but are considered less likely.
- Moderate age-related kidney changes with trace bilateral pyelectasia.

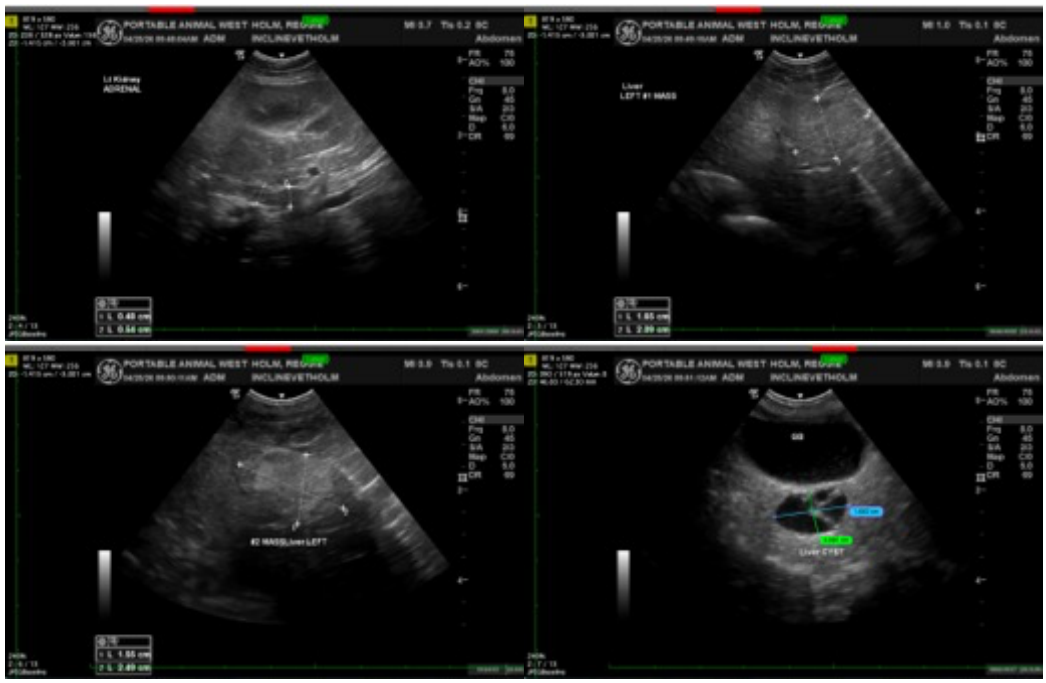
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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.

Fine needle aspirates of the liver nodules/masses are recommended if patient's coagulation status is appropriate.

Pending results of above, additionally, given patient's breed, fasted triglyceride levels are recommended as idiopathic hypertriglyceridemia in schnauzers can occasionally lead to a secondary cholestatic hepatopathy.

In the meantime, in addition to supportive/symptomatic medical management if any clinical signs, empirical hepatic nutraceuticals including ursodiol can be considered while monitoring liver enzymes for improvement.



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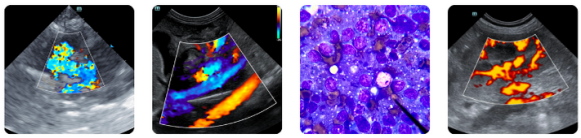

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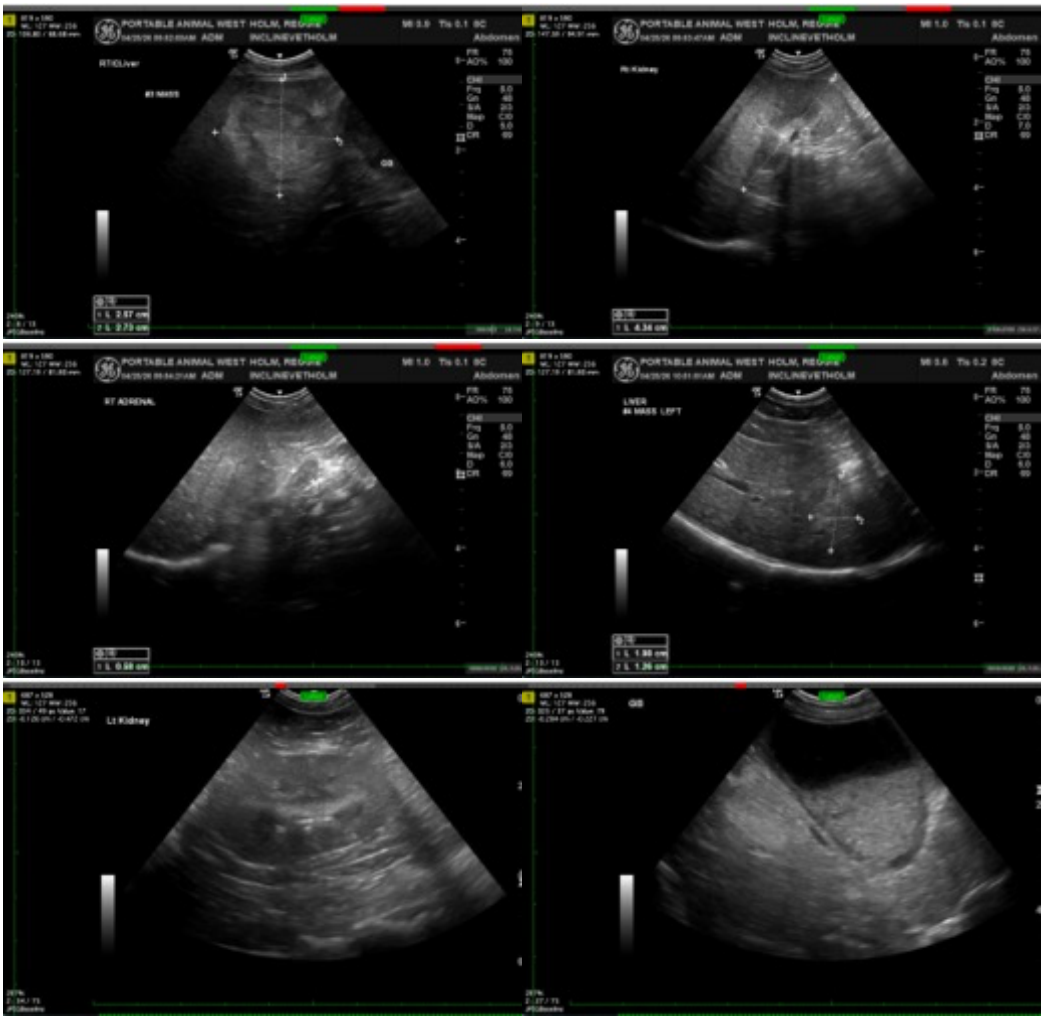

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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
info@sonopath.com