

PATIENT

Arya Williams

PRESENTING CLINICAL SIGNS

PAWS Request Form: Chief Concern / Provisional Diagnosis: Non-specific hepatopathy with persistently elevated liver values since last ultrasound in March 2021 Relevant Medical History and Physical Exam findings: Arya has increased liver enzymes for about 1 year. She has had periodic episodes of anorexia and some weight loss. Abdominal ultrasound in March showed non-specific hepatopathy. Recommend recheck abdominal ultrasound and liver aspirates prior to procedure for liver biopsy. Owner is aware this may be the next step given limitations of aspirates. Recent Diagnostics: Relevant Laboratory Results / Abnormalities: Lymp 1.03 ALT 367, ALP 434, Tbili 1.7 Mountain View Animal Hospital and Holistic Pet Care Ultrasound Submission Form Client: Kelly Williams Patient: Arya Sex: Spayed Female Date: 12/16/2021 DOB: 3/27/2013 Species: Canine Phone: (775) 813-1223 Age: 8 Yrs. 8 Mos. Breed: Shepherd Mix Current medications (include full name, dosage and frequency): Cerenia 60mg SID PRN for inappetance/nausea Relevant Radiograph Findings(email radiographs if available): See abdominal ultrasound performed in March 2021

SPECIES

Canine

BREED

Shepherd X

SEX

Spayed Female

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

AGE

8 Years 8 Months

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.

WEIGHT

41 Pounds

The left kidney has a normal shape and size (6.46 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

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

The right kidney has a normal shape and size (6.09 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

Adrenal Glands

The left adrenal gland is normal in size measuring 0.42 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

HOSPITAL NAME

MountainView AH

The right adrenal gland is normal in size measuring 0.52 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 normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

REFERRING VET

Dr. Sarah Kalivoda

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.

INVOICE

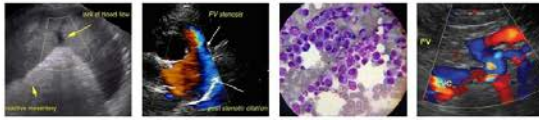
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Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is severely heterogenous in echotexture with subtle, indistinct focal mottling. The visible

DATE

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Arya Williams portions of the vasculature and biliary tract appear normal. There is a more distinct focal hypoechoic nodule visualized measuring 0.84 cm.

SPECIES

Canine

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.

BREED

Shepherd X

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.

SEX

Spayed Female

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.)

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Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

WEIGHT

41 Pounds

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 prominent and mottled compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

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Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There is a very prominent cystic enlarged lymph node medial to the spleen and the pancreas visualized on the left side, measuring 2.05 cm x 4.23 cm. The omentum is generally of normal echogenicity, but is increased somewhat around the prominent splenic lymph node.

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PRIMARY FINDINGS

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- Heterogeneous liver with ill-defined hypoechoic nodules – 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.

REFERRING VET

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- Large cystic lymph node medial to the spleen and pancreas – Differentials include neoplastic change, inflammation or infection.

- Moderate gallbladder debris – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

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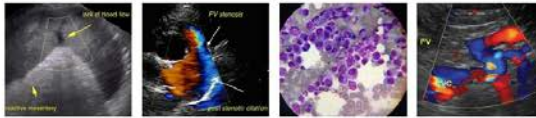
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SECONDARY FINDINGS

- Prominent, mottled pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

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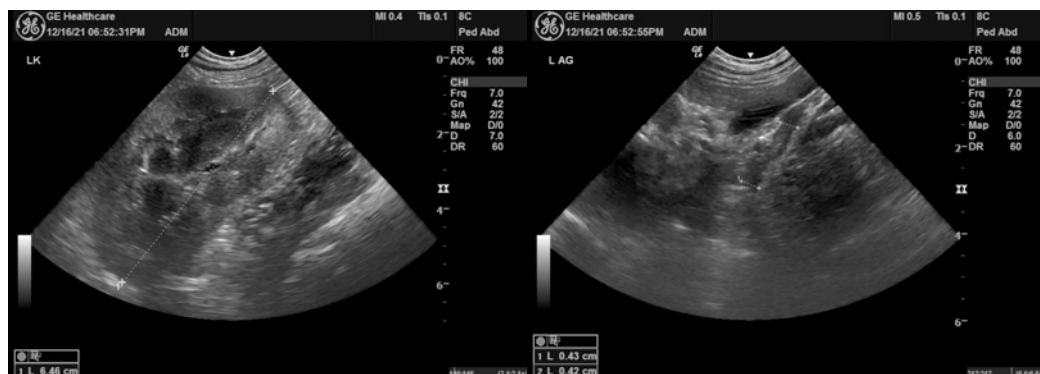
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver is very heterogeneous with some focal distinct nodules. Additionally, there is a large cystic lymph node present medial to the spleen and pancreas. It may be possible to get a window for an aspirate of the lymph node, but its location can be difficult based on interference from the spleen. If this is not possible, I would recommend:

- 3-view thoracic radiographs
- Checking coagulation parameters
- I would recommend a surgical liver biopsy with sampling or removal of the enlarged splenic lymph node.

The appearance of the liver is concerning for a possible chronic inflammatory condition with regenerative nodules. However, based on the lymph node enlargement, a neoplastic process would have to be considered.





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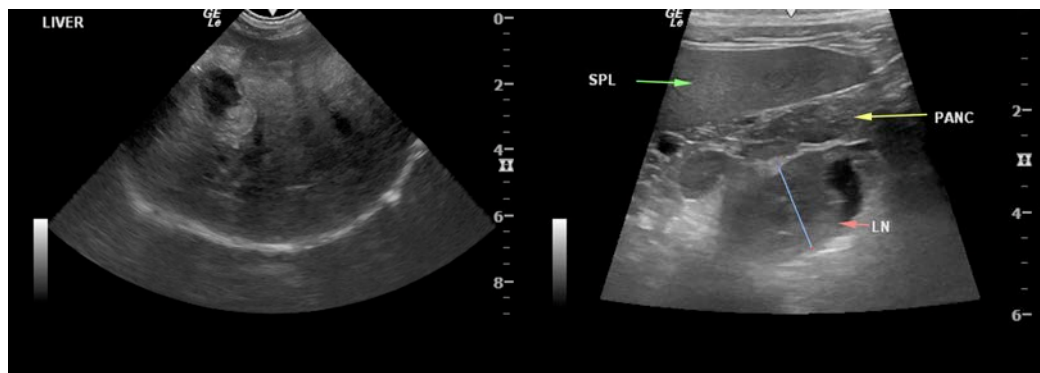
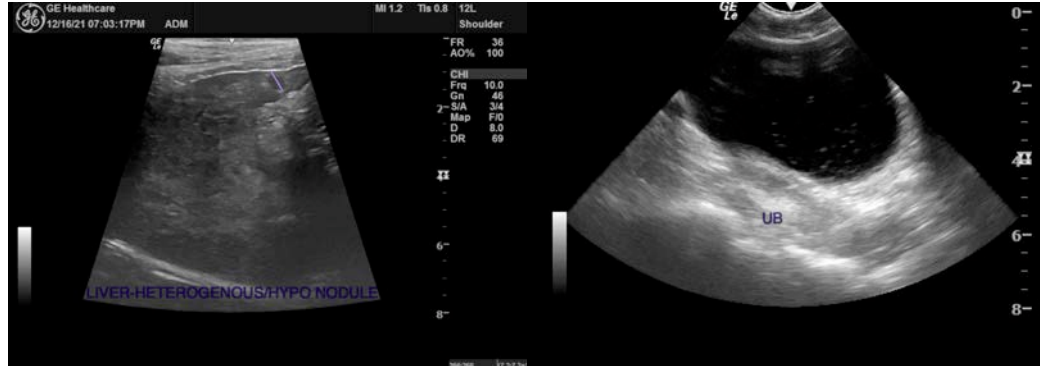
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

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