



**PATIENT**

Stella Fredericksen

**SPECIES**

Canine

**BREED**

Golden Retriever

**SEX**

Spayed Female

**AGE**

13 Years

**WEIGHT**

64.5 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Adrienne Waffle

**HOSPITAL NAME**

Torch Lake VH

**REFERRING VET**

Dr. Adrienne Waffle

**INVOICE**

38940

**DATE**

6/22/22

**PRESENTING CLINICAL SIGNS**

Hx of suspected abdominal bleed. Referred from local clinic  
Abnormal PE/Chem/CBC/UA Results: ALB - 2.4 ALP - 432 CHOL - 418 Radiographs - decreased abdominal detail per RDVM MM this am - pink < 2 Attitude BAR Strong pulses

**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 right kidney is normal in size (6.3 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 (7.0 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**

The adrenal glands are unable to be well visualized in these images. However, the area of the adrenal glands is examined without evident pathology.

**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). A 1.5-2.0 cm hypoechoic nodule is noted in the mid body, which is creating a capsular bulge. Splenic vasculature appears normal.

**Liver**

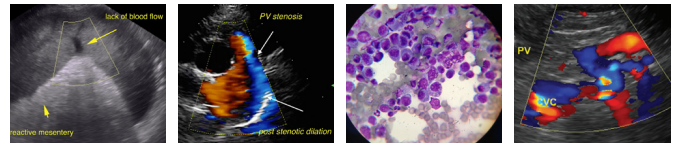
Liver is subjectively enlarged. Margins are smooth but round. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen. A 3-4 cm heterogeneous, cavitated mass is present on the tip of the left caudal liver lobe. There is a small 1.0 cm hypo- to anechoic nodule deeper in the liver. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is moderately distended with anechoic bile and gravity dependent echogenic sediment. 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 stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) 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 (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.



**PATIENT**

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

**SPECIES**

**Pancreas**

Canine

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.

**BREED**

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**Free Abdomen**

There is an anechoic fluid with echogenic debris within the fluid as well as markedly hyperechoic enhanced, clumped fat and mesentery in the cranial abdomen, surrounding the liver mass and the splenic nodule.

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**ULTRASONOGRAPHIC FINDINGS**

**AGE**

13 Years

- Heterogeneous, cavitated liver mass – concerning for infiltrative neoplasia such as sarcoma. Benign disease is possible (such as a cyst, hematoma, etc.), but considered much less likely.
- Hypoechoic splenic nodule resulting in a capsular bulge – also concerning for sarcoma. Given the more solid appearance, a second infiltrative neoplasia such as round cell neoplasia and/or benign nodule, as can be seen with extramedullary hematopoiesis, nodular hyperplasia, etc. have to also be considered.
- Free fluid and hyperechoic clumped mesentery around the mass – consistent with the reported suspicion of hemorrhage with a focal reaction/peritonitis suspected.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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- 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.
- An exploratory laparotomy is recommended for the liver mass removal, as well as a splenectomy. While there appears to be disease in both organs, metastatic disease cannot be definitively diagnosed via ultrasound, and the liver mass appears able to be fully excised. Therefore, surgery is warranted to prevent future risk of hemorrhage, necrosis, torsion, etc. of the mass. The 2<sup>nd</sup> smaller cystic lesion in the liver could be a metastatic nodule and should be biopsied if surgery is elected. However, a benign cyst, hematoma, etc. is considered as likely

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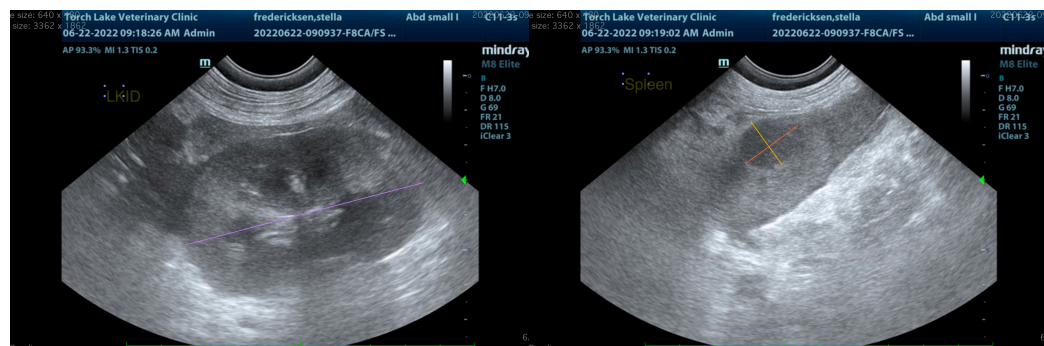
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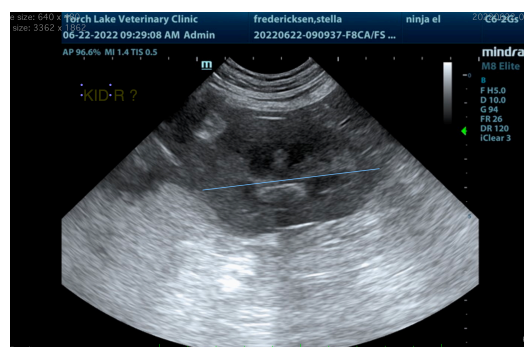
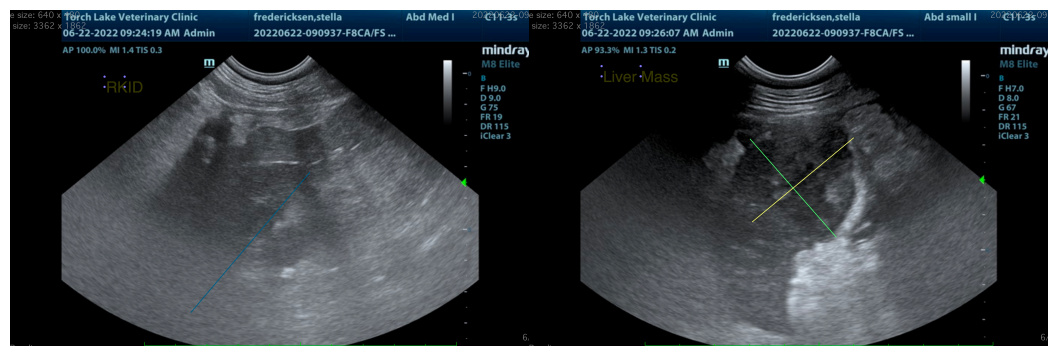
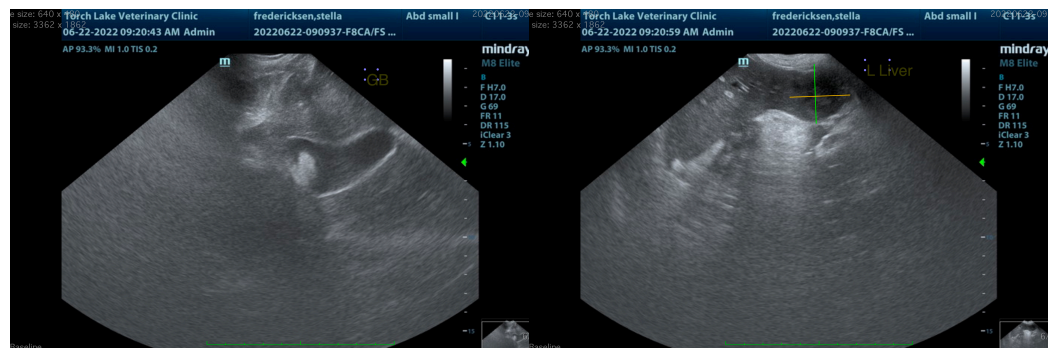
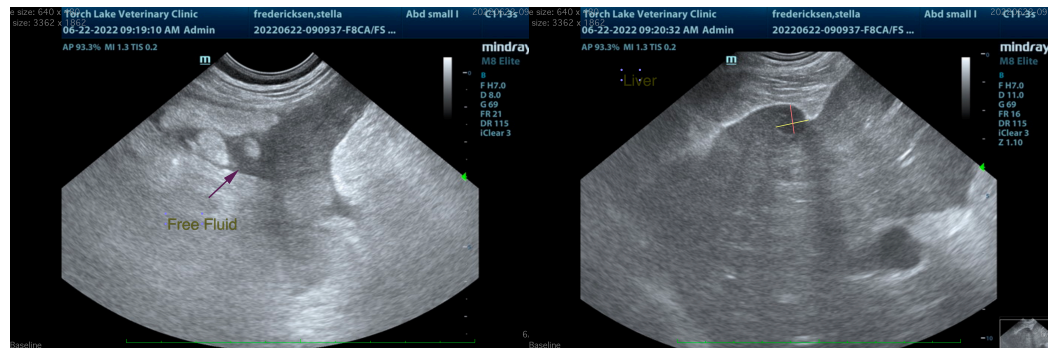
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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Canine

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.

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Beth.Johnson@sonopath.com

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