

PATIENT PRESENTING CLINICAL SIGNS

PATIENT Harvey Shannon
SPECIES Canine
BREED Swedish Valhund

History of elevated liver enzymes since October 2020. NSF on PE, nonclinical at home. Is having full work up done and covered by Farley Foundation. Previous Focal Zone US 12/2/2020 which stated non-specific yet subjectively chronic benign hepatopathy and minor gallbladder debris. Has been on Interceptor and Bravecto.

Abnormal PE/Chem/CBC/UA Results:ALT 626, Ca 3.09, Lipase 2361, GGT, T bili WNL and ALP pending.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

SEX *Urinary System*

SEX Neutered Male
AGE 12yr

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 prostatic pathology.

WEIGHT 16kg

The right kidney is normal in size (5.84 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.

INTERPRETED BY Beth Johnson, DVM DACVIM

The left kidney is normal in size (5.47 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.

IMAGING PERFORMED BY *Adrenal Glands*

IMAGING PERFORMED BY Crystal Hill

The right adrenal gland is normal in size (cranial 1.5 cm, caudal 1 cm), shape, and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. Those measurements are of the general area, a right adrenal gland is difficult to fully distinctly visualize.

HOSPITAL NAME Graham Animal Hospital

The left adrenal gland is normal in size (cranial 0.57 cm, caudal 0.74 cm), shape, and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

REFERRING VET *Spleen*

REFERRING VET Dr. Seager

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.

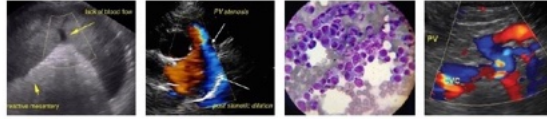
INVOICE *Liver*

INVOICE 10307
DATE 7/11/2023

The right liver is normal. The entire left liver from the diaphragm caudally is composed of a mildly to moderately heterogeneous iso to slightly hypoechoic mass, measuring 7 cm to 8 cm plus x 11 cm to 12 cm plus in size. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

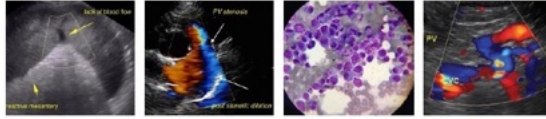
Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal



PATIENT	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 or foreign material. Pyloric outflow tract appears patent.
Harvey Shannon	
SPECIES	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 or foreign material.
Canine	
BREED	The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.
Swedish Valhund	
SEX	Pancreas
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.
AGE	Free Abdomen
12yr	
WEIGHT	There is no evidence of free peritoneal effusion noted in these images.
16kg	There is no apparent lymphadenopathy noted in these images.
INTERPRETED BY	ULTRASONOGRAPHIC FINDINGS
Beth Johnson, DVM DACVIM	<ul style="list-style-type: none"> A large heterogenous liver mass, is concerning for infiltrative neoplasia, especially given this patient reported hypercalcemia i.e., round cell neoplasia such as lymphomas versus hepatocellular carcinoma versus other. Having said that given the carnosity of this patient reported hepatopathy a chronic benign inflammatory hepatopathy combined with nodular hyperplasia, extramedullary hematopoiesis, etc. cannot be ruled out without tissue sampling. Mild Gallbladder debris - 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.
IMAGING PERFORMED BY	
Crystal Hill	
HOSPITAL NAME	INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS
Graham Animal Hospital	
REFERRING VET	Further evaluation of this patient's hypercalcemia is recommended in the form of a malignancy panel to include PTH, PTHrP, and ionized calcium. Additionally, if not recently evaluated a thorough rectal and perianal exam is recommended as well as thorough palpation of peripheral lymph nodes. A fine needle aspirate of the liver mass is recommended if the patient's coagulation status is appropriate especially if the malignancy panel comes back suggestive of hypercalcemia a malignancy. 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.
Dr. Seager	
INVOICE	
10307	
DATE	Pending the above work up ultimately an exploratory laparotomy for planned liver lobectomy/excisional biopsy may ultimately be recommended. However, given the large size of the liver mass and the visible inclusion of almost entire left liver, if surgery is ultimately elected a pre surgical planning abdominal CT scan could be considered.
7/11/2023	

Given the geographical differences in reference values, not all specialists are familiar with reference values even for common labs. Therefore, for the most thorough interpretation of provided history/report providing reference ranges and/or even just high versus low following numbers would be helpful.



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Swedish Valhund

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HOSPITAL NAME

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REFERRING VET

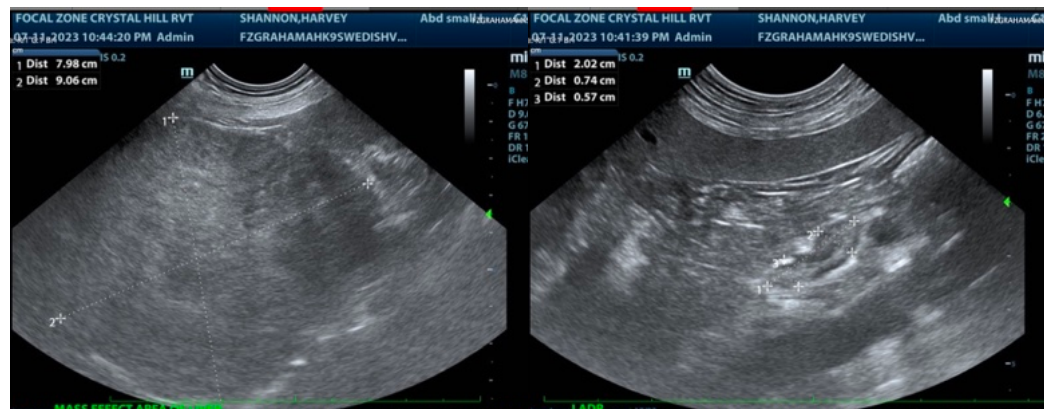
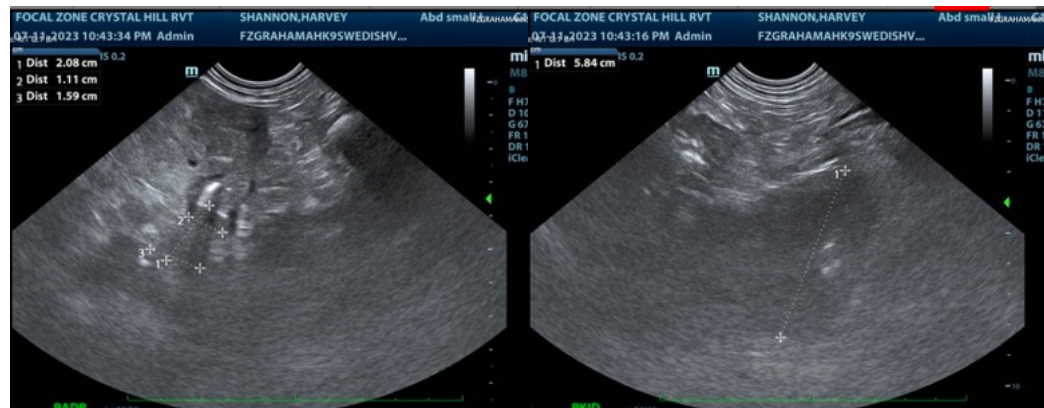
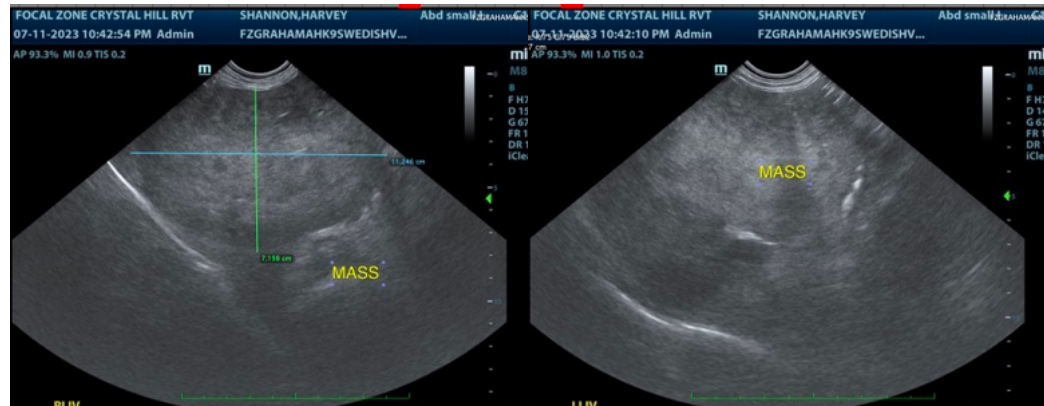
Dr. Seager

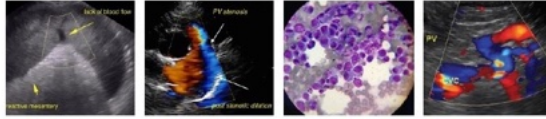
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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