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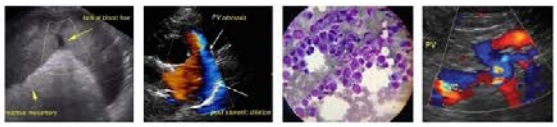

THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Charlie Wilson

SPECIES

Canine

BREED

Beagle

SEX

Neutered Male

AGE

10 Years

WEIGHT

18.6 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Ancaster AH

REFERRING VET

Dr. Matthews

INVOICE

43580

DATE

12/20/22

PRESENTING CLINICAL SIGNS

Patient has chronic vomiting and diarrhea since last March 2022. sometimes responds to Tylosin and is currently not vomiting and not on Tylosin. Patient's appetite has been poor for the last few months, will wax and wane, eat a bit of a new food for a few days and then stop eating it. Often turns his nose up at foods and sometimes even water, even including table scraps. Sometimes seems very hungry and interested, but then will just not want food. Had echo July 2022 and was diagnosed with myxomatous valve disease stage B1 with grade 2 left cranial parasternal systolic murmur. He weighed 22 lbs at that time. Weight loss has occurred. Bloodwork in July only showed mild elevation of SDMA and was otherwise WNL. Had full dental this year to rule out dental discomfort.

Abnormal PE/Chem/CBC/UA Results: Xrays report was suspicious for a mass attached to spleen and an enlarged liver.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly to 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.

The prostate is normal in size (0.63 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (4.69 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.85 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.53 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.

The right adrenal gland is normal in size measuring 0.66 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.

Spleen

The spleen is large, irregular, and severely mottled. The blood flow through the hilus and splenic parenchyma appears normal. The caudal third of the spleen appears relatively normal in size and appearance. There appears to be a large, irregular, hypoechoic, severely mottled/nodular mass effect arising from the head of the spleen, which curls cranially, ending in a large, solid mass effect measuring approximately 11.15 cm x 6.56 cm.

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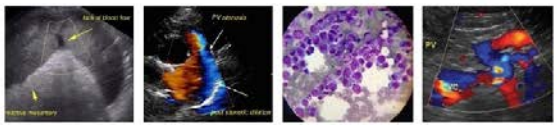

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Liver

The liver is large and irregular. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There are numerous mass effects/nodules visualized associated with the hepatic parenchyma. Particularly in the right caudal aspect, there is am irregular, hypoechoic, heterogeneous mass effect measuring 3.49 cm x 4.58 cm, a large hypoechoic nodule/mass measuring 1.7 cm, and a target lesion measuring 1.96 cm in diameter.

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.

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.

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

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 large and hypoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. Consistent with moderate pancreatitis.

Free Abdomen

There is a scant amount of free abdominal fluid. There are large, irregular, hypoechoic lymph nodes visualized within the abdomen, examples of which measure 0.68 cm and 0.85 cm in diameter. The omentum is hyperechoic around the liver, pancreas, and the mass lesions.

Other

A brief view of the heart was submitted. No significant pericardial effusion was seen.

PRIMARY FINDINGS

- Large, irregular, hypoechoic, mixed echogenic, solid mass effect that appears to be arising from the head of the spleen – A focal solid mixed echogenicity mass is visualized associate with the spleen. This mass distorts the splenic capsule. Differentials include : benign lesions (lymphoid hyperplasia, hemangioma etc..) or cancerous lesions (hemangiosarcoma, lymphoma, histocytic sarcoma etc..)

- Hypoechoic, prominent pancreas with prominent pancreatic duct – The pancreatic changes are most consistent with moderate pancreatitis/pancreatic inflammation. Recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider fine needle aspirate if not improving.

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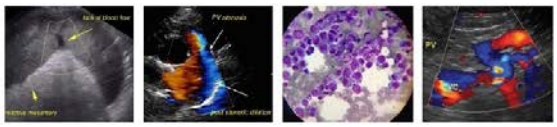

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- Large, heterogeneous liver with numerous mass lesions – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. The lesions observed are varied in appearance with some irregular hypoechoic lesions similar to the splenic mass parenchyma. Others are target lesions and hypoechoic nodules. Findings are concerning for metastatic lesions, although other differentials are possible.
- Scant free abdominal fluid
- Hypoechoic, irregular mesenteric lymph nodes – The moderate mesenteric lymphadenopathy could be concerning for a neoplastic process, although you can see significant lymphadenopathy in some cases of autoimmune/inflammatory disease, infectious disease(tick born disease-such as bartonella, fungal infections, FIP (cats)) etc. A fine needle aspirate with cytology is recommended for further evaluation.

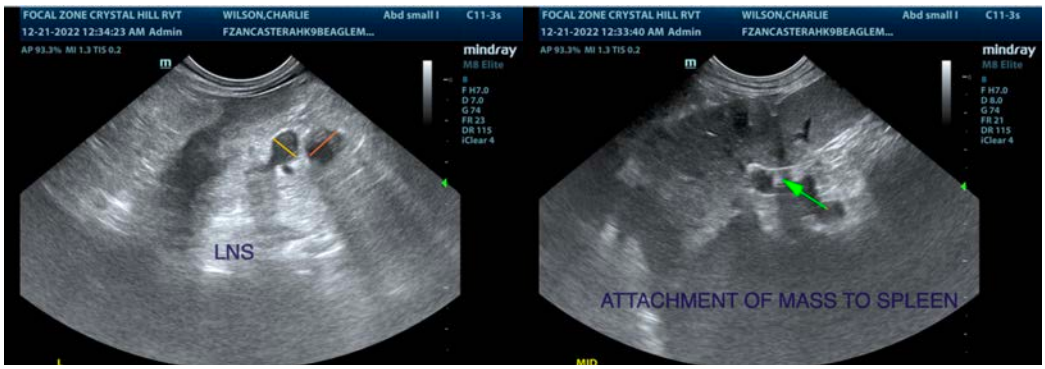
SECONDARY FINDINGS

- Moderate gallbladder debris – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a very large, mixed echogenic, solid, hypoechoic mass effect in the mid abdomen. There appears to be a pedunculated attachment of this mass lesion to the cranial aspect of the spleen. Additionally, there are several large lesions visualized in the hepatic parenchyma, which are concerning for possible metastatic disease, although other differentials are possible.

The pancreas appears prominent and hypoechoic as compared to surrounding mesentery, most consistent with pancreatic inflammation, although neoplastic change is also possible. Options moving forward would be to consider referral to a veterinary surgeon for exploratory surgery with hopes to remove the splenic lesion and sample or remove other possible metastatic lesions, provided 3-view thoracic radiographs are normal. Other more conservative options would be to fine needle aspirate the liver (many of the nodules/masses noted are deep and may be difficult to reach), and/or a contrast CT scan to better evaluate the liver and abdominal cavity for additional evidence of metastasis with high resolution. Prognosis is guarded.



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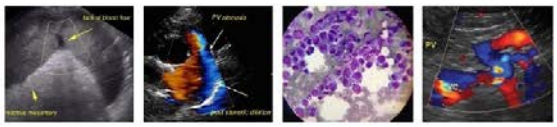

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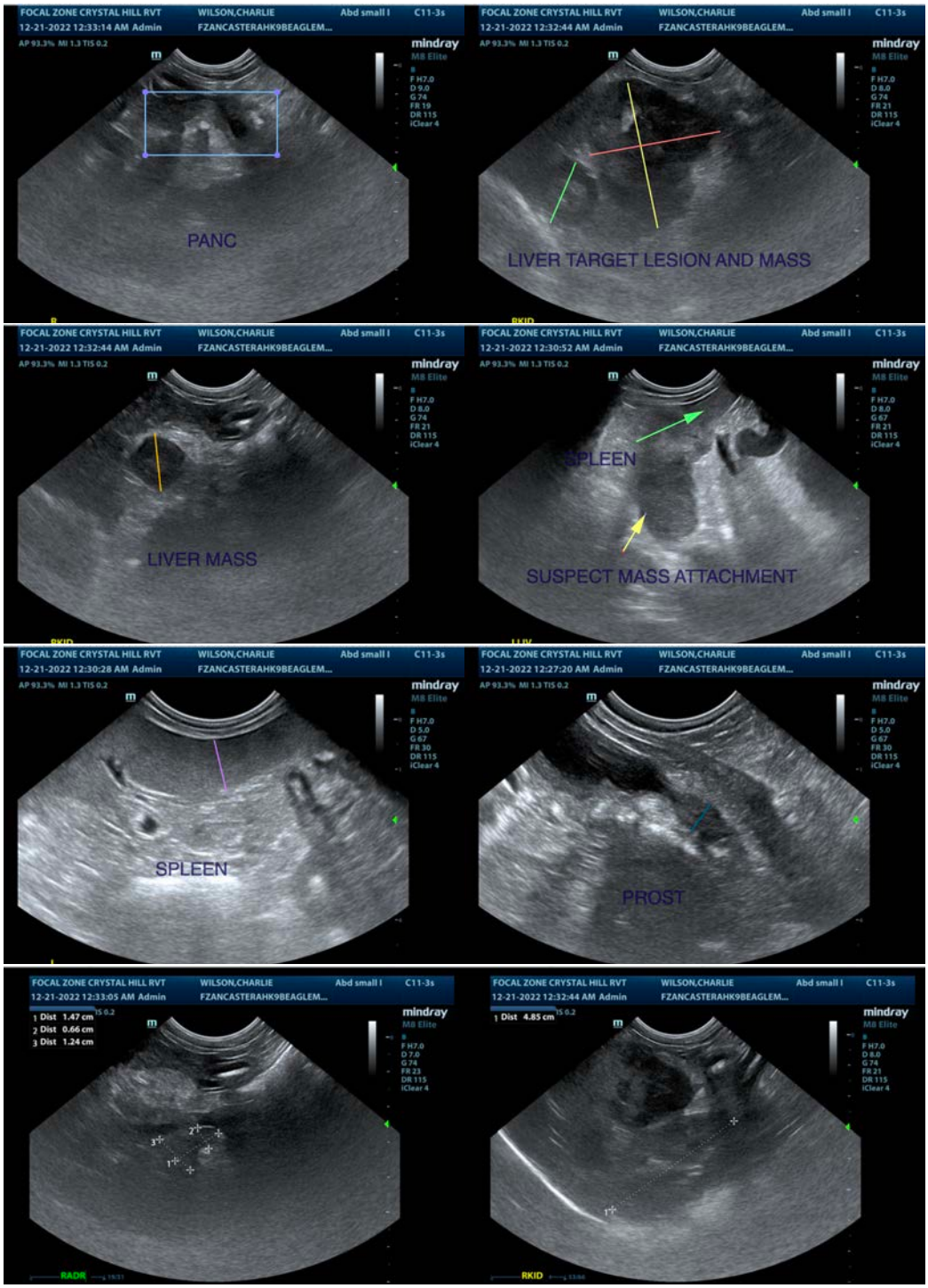

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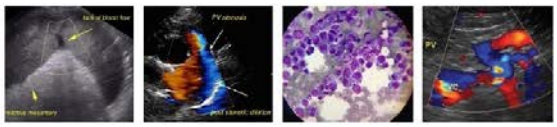

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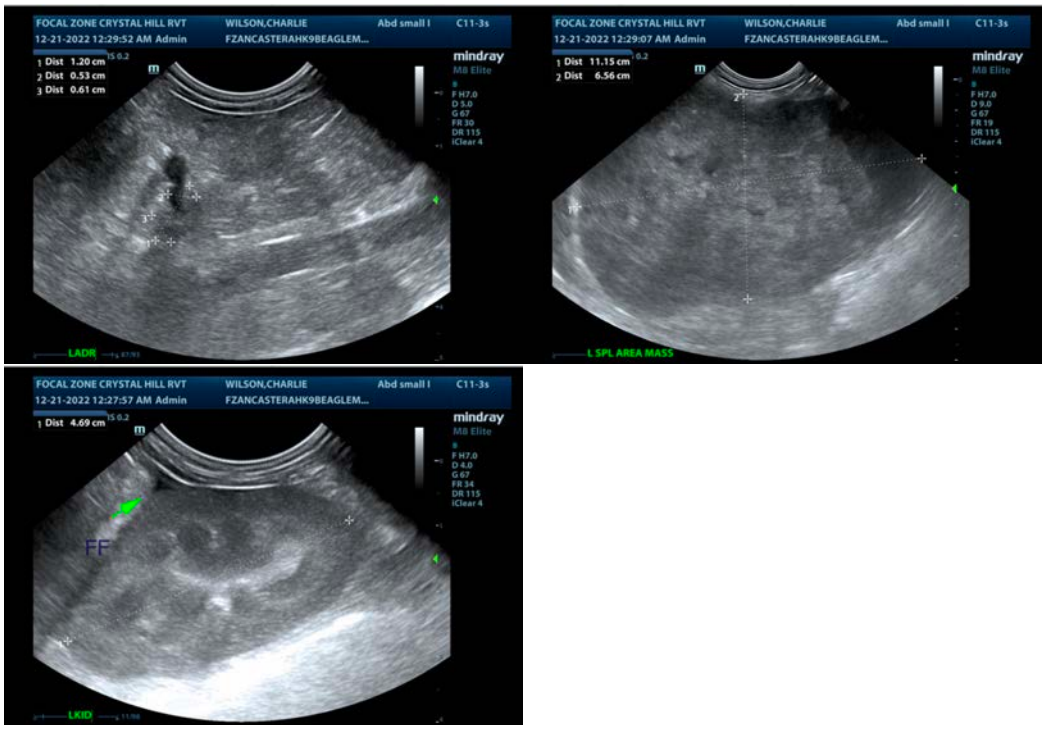

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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