**PATIENT**

Katie Fitzpatrick

SPECIES

Canine

BREED

Mix

SEX

FS

AGE

14.5 years

WEIGHT

38 lbs

INTERPRETED BYKathleen Sennello DVM,
MS, Diplomate ACVIM
(Small Animal Internal
Medicine)**IMAGING
PERFORMED BY**
Amy Mayhew LVT**HOSPITAL NAME**

SVS Imaging Michigan

REFERRING VETDr. Fitz's Bayside
Animal Clinic**INVOICE**
10725ag**DATE**

06/02/2022

PRESENTING CLINICAL SIGNS

History: Chronic elevated liver enzymes; thrombocytopenia diagnosed last week; diarrhea 1 week ago, resolved now; decreased appetite in general for the last year Amantadine 100 mg; 1 BID Gabapentin 300 mg; 1 BID Pred 20 mg; 1 BID for the last week due to thrombocytopenia Sucralfate 1 gm; 1 BID Metronidazole 250 mg SID

Abnormal PE/Chem/CBC/UA Results: Thin, BCS 3/9, weight loss ~ 10 # over the last year, 0.5# in the last week bilateral elbow dysplasia, moderate hip dysplasia bilateral ~ 8cm soft tissue mass right hip

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**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.

The left kidney has a normal shape and size at 5.9 cm in length. Overall echogenicity is normal with decreased 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.

The right kidney has a normal shape and size at 5.0 cm. Overall echogenicity is normal with decreased corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There are numerous cortical cysts. There is no evidence of 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. 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 0.65cm 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 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. There is a moderate sized hypoechoic nodule in the parenchyma of the spleen measuring 1.07 cm x 1.75 cm. This does not significantly deviate the splenic capsule.

Liver

The liver is subjectively large in size, and echogenicity with smooth peripheral margins. 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 ill-defined hypoechoic nodules within the parenchyma and example measuring 2.72 x 3.87 cm.

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 large amount of non-organized echogenic debris present but some of this debris is organizing consistent with an early mucocele. 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.

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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 normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Large heterogeneous liver with 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.
- Moderate sized hypoechoic splenic nodule. There is a non-cavitated, hypoechoic splenic nodule visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- Large amount of gallbladder debris with organization into a mucocele. Recommended medical management for mucocele and close monitoring.
- Decreased corticomedullary distinction in both kidneys. The bilateral renal findings are consistent with age-related change

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver is large and heterogeneous with hypoechoic nodules, the appearance of these nodules trends towards a benign process but underlying neoplasia cannot be excluded as a possibility. Consider a liver function test and FNA of the liver once the PLT count is in a safe range.

There is a hypoechoic nodule visualized within the spleen. This too could represent a benign or neoplastic process. For now, recommend continued monitoring. Consider a FNA of the spleen once PLT count improves.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

There is a large amount of debris in the gallbladder consistent with early mucocele formation. This is concerning for possible progression into a surgical lesion. Recommended antibiotics and Ursodiol therapy with close monitoring.

Per the history the PLT count is severely decreased. In this situation I would typically start immunosuppression with a moderate dose of Prednisone and a second immunosuppressant such as cyclosporine. Recommend close monitoring of the gallbladder lesion during immunosuppression and be ready to taper the prednisone as soon as possible as it could contribute to some of the issues going on medically.

IMAGING PERFORMED BY

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svsimagingmi@gmail.com



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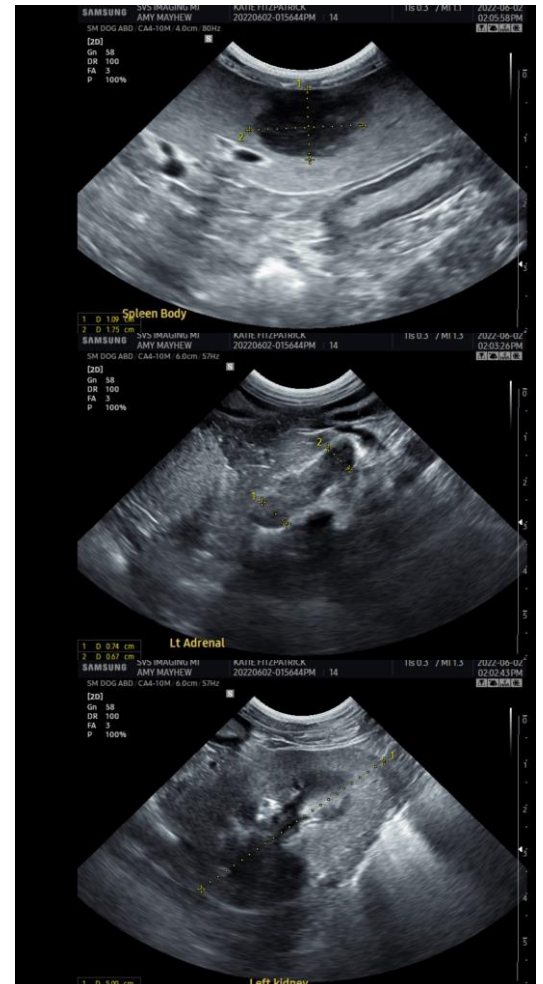
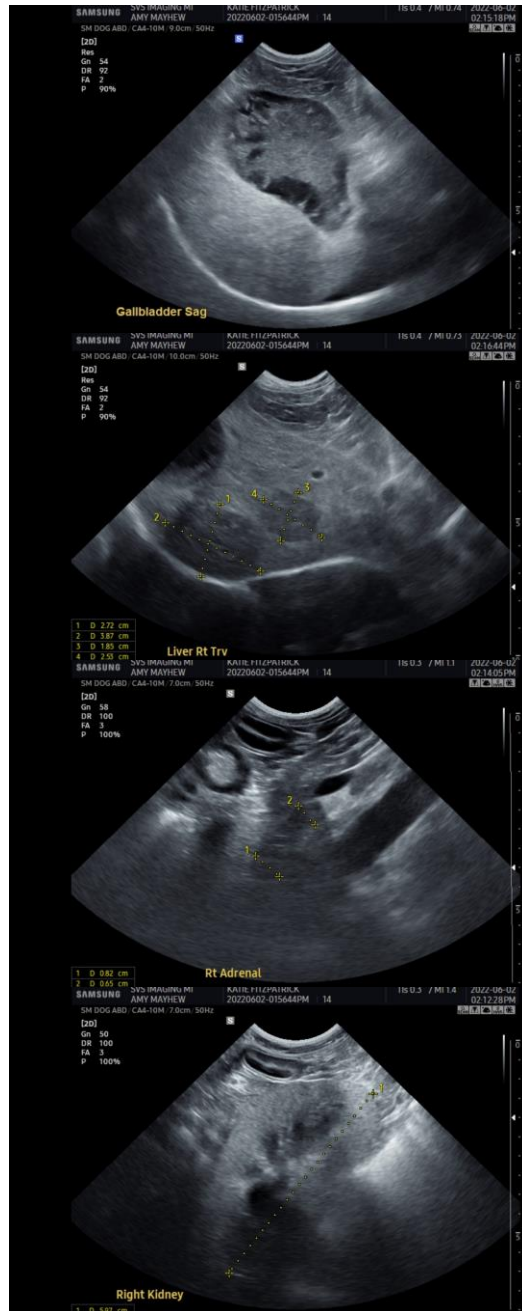
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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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