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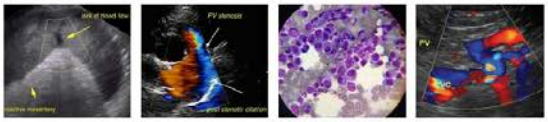

IMAGING PERFORMED BY
pawsonography@gmail.com 530-786-8340

PATIENT

Sigmund Pile

SPECIES

Canine

BREED

Dachshund

SEX

Neutered Male

AGE

16 Years

WEIGHT

16.5 Pounds

INTERPRETED BY

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

IMAGING BY

Loetitia Saint-Jacques, LVT

HOSPITAL NAME

Pine Creek VC

REFERRING VET

Dr. Denny Nolet

INVOICE

39515

DATE

7/13/22

PRESENTING CLINICAL SIGNS

Heart murmur 3-4/6, mild dental disease, overweight, No appetite, very lethargic Hx of GI upset with vomiting and diarrhea (5/22), Hx alkaline phosphatemia (5/22), Hx of low Na/K ratio (5/22), Hx of thrombocytosis (5/22), Hx of L AG abscess (1/22). Patient currently on Cerenia, Sucralfate, Famotidine, Probiotics. Weight-loss of 1.5 pounds since Friday (5 days). Owner is feeding bland diet- patient will unwillingly eat when coaxed and has food put in his mouth. (Chicken, rice, cottage cheese, eggs). Patient will drink water on his own.
Abnormal PE/Chem/CBC/UA Results: CBC - WBC 5,100 with 3,213 neutrophils; HCT 49%; PLT 537,000 (r/o inflammation, neoplasia, other) Chem - ALT 130 (12-118;ALP 786 (5-131;BUN 17; Creat 0.9; SDMA 7.4; Na/K ratio 28 ; Trig 356 (29-291; PSL 211 (24-140

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 prostate is normal in size (0.88 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 (4.46 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.

The right kidney has a normal shape and size (4.53 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.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.59 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 0.59 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 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 are two hypoechoic nodules visualized within the parenchyma. One measures 0.86 cm in diameter. The other is smaller at 0.32 cm x 0.47 cm. Additionally, there is a large, focal, well demarcated, hyperechoic nodule measured 1.05 cm with the appearance of a myelolipoma, but it does deviate the splenic capsule.

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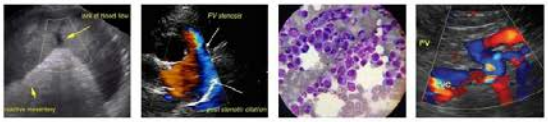

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Liver

The liver is subjectively normal 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. No focal nodules or cystic lesions are observed.

The gall bladder lumen is significantly distended. Some areas of the wall appear mildly thickened with adherent debris. There is a large amount of primarily non-organized echogenic debris. There is a focus of hyperechoic, non-color flowing material in the gallbladder neck. Amidst this material is a hypoechoic, rounded focus measuring 0.52 cm x 0.39 cm, which could represent a small mass lesion, but this does not light up on color flow either. A completely obstruction is not visualized. There is no evidence of significant bile duct dilation.

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. Jejunum wall measured 0.29 cm. 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

- Two hypoechoic nodules within the spleen as well as a focal hyperechoic nodule – Differentials for the hypoechoic nodules include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis. The hyperechoic lesion trends towards a benign lesion such as a myelolipoma, but it does deviate the splenic capsule, so consider a fine needle aspirate.

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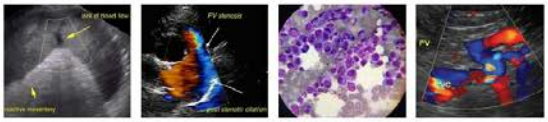

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- Heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

- Large gallbladder with a large amount of adherent hyperechoic debris as well as focal non-contrast enhancing material within the gallbladder neck – This material could represent organized ebris or a mass lesion. A complete obstruction is not visualized, but findings are suggestive of cholecystitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

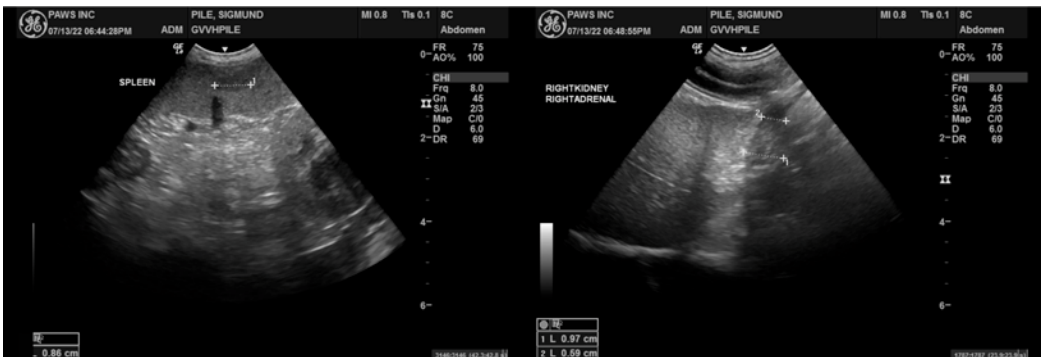
No focal GI lesions are visualized to explain the symptoms described. Unfortunately, you can have significant enteritis and GI upset despite having a relatively normal ultrasound.

The gallbladder appears distended with a large amount of hyperechoic debris. Much of this debris appears consolidated in the neck of the gallbladder, where it was difficult to differentiate debris from soft tissue, so a mass lesion cannot be excluded. There is no surrounding free fluid, and minimal surrounding inflammation observed, so it is difficult to say if this is causing the symptoms described. Recommend treatment for cholecystitis with Ursodiol, antibiotics, pain medication, nausea medication, etc., and close montiroing of this area with ultrasound, as this could become a surgical lesion.

The liver itself is heterogeneous. This is a non-specific finding. Consider a liver function test, screening for Leptospirosis, and a fine needle aspirate of the liver. If surgical evaluation is considered, recommend a liver biopsy.

There are two ill-defined, hypoechoic nodules visualized within the spleen, as well as a larger, more defined hyperechoic nodule. The appearance of the hyperechoic nodule tends towards a more benign lesion, but it does deform the splenic capsule, and underlying neoplasia cannot be excluded as a possibility. Options moving forward include a fine needle aspirate of these lesions, or a splenectomy.

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



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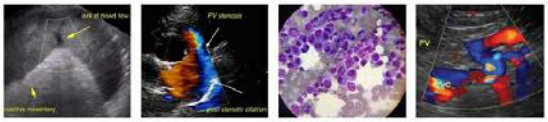

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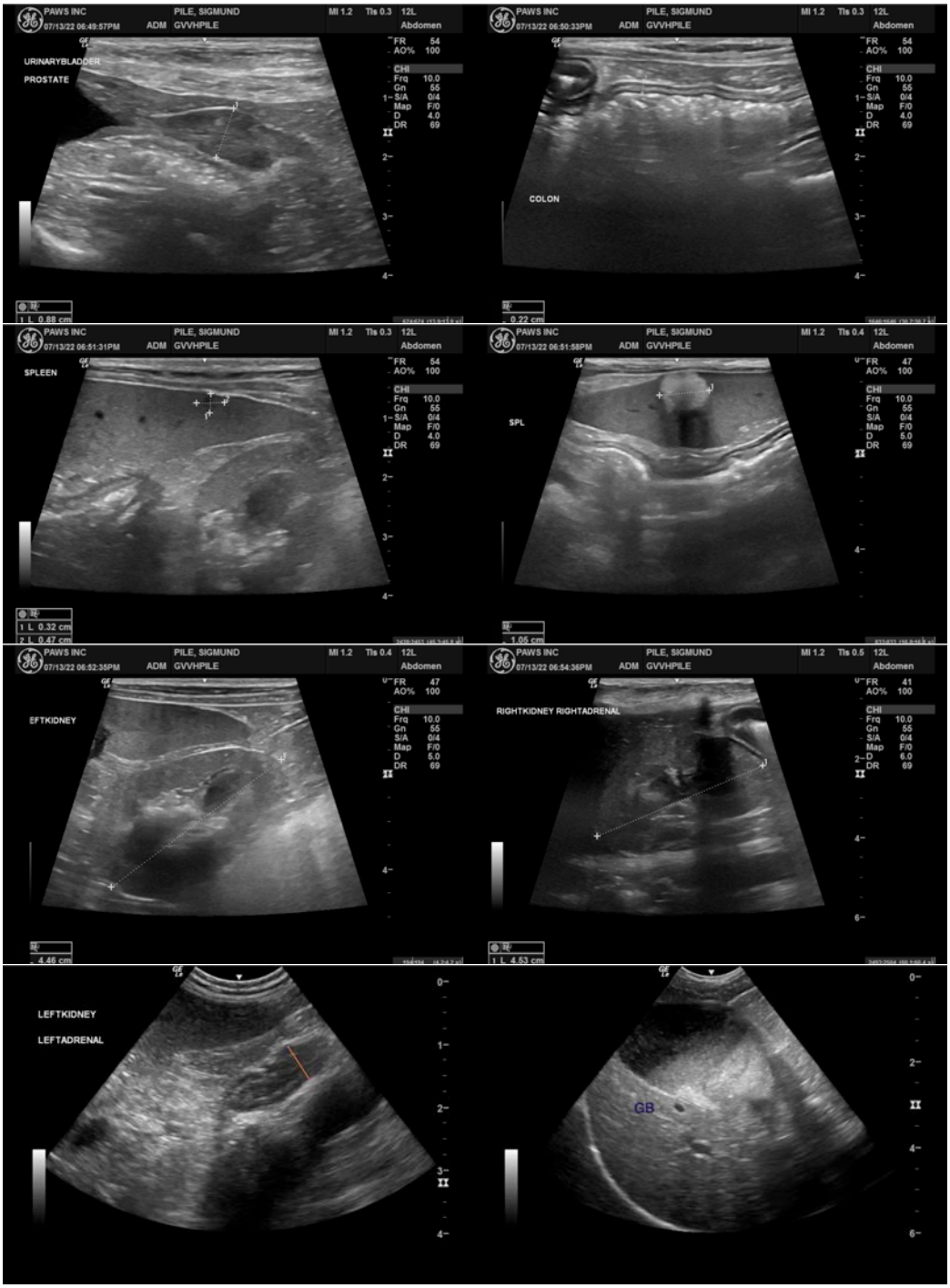

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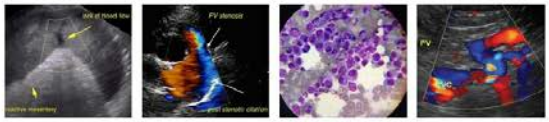

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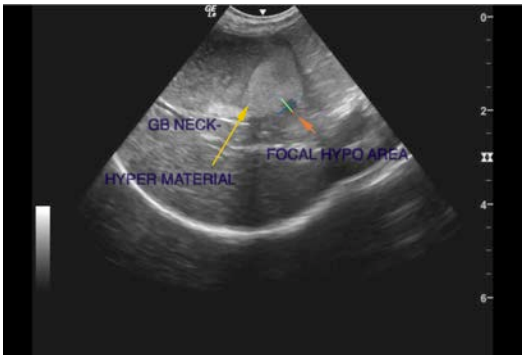

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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