

**DATE PRESENTING CLINICAL SIGNS**

12/19/22

History: Weight loss over the past month. Hyporexia. Acute diarrhea over past 1-2 weeks. Cranial abdominal discomfort. Bicavitary serous effusion. Decreasing hematocrit but otherwise normal labwork.

PATIENT

Chloe Thomas

Current Medications: Started Mirtazapine 22.5mg SID, Gabapentin 300mg BID.

Lab Results: 12/15/22 HCT 35 (down from 48), negative fecal.

Radiographs: Trace thoracic fluid and moderate abdominal effusion, possible mass effect cranial abdomen.

SPECIES

Date of Previous IntraPet Ultrasound: No previous.

Canine

Sedation: Dexdomitor/Torbugesic IM.

Stat Report: Not requested.

BREED

Imaging Performed By: Stephanie Warga RDCS, RVT.

German Shepherd

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX****Urinary System**

Spayed Female

Urinary bladder is adequately 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.

AGE

5/10/15

Left kidney is normal is size (7.55 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.

WEIGHT

65 Pounds

Right kidney is normal is size (6.87 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 BYBeth Johnson, DVM
DACVIM**Adrenal Glands**

Left adrenal gland is normal in size (2.97 cm long x 0.56 cm at cranial pole and 0.53 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

HOSPITAL NAME

Everhart WellPet

Right adrenal gland is normal in size (2.96 cm long x 0.84 cm at cranial pole and 0.78 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

REFERRING VET

Dr. Notarangelo

Spleen

Spleen is subjectively large in size with a mildly swollen but smooth capsule. Parenchyma is normal and homogenous in echogenicity and echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

INVOICE

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Liver

Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. 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 moderate 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

The visible stomach wall is normal in thickness 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. 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.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

A moderate amount of anechoic free fluid is present. Medial iliac and cranial abdominal lymphadenopathy is present. The mesentery/mesenteric fat is diffusely hyperechoic and clumped throughout the abdomen. In the cranial abdomen, there is a focal 1.4 cm thick hypoechoic thickening that appears to be bowel in origin but specific identification of the loop of bowel cannot be identified in these images.

Other

Pleural effusion is noted. There is no pericardial effusion obviously visible in these images.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Hypersplenism – can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia, as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.
- A focal hypoechoic bowel thickening, differentials for which include a bowel mass formed from infiltrative neoplasia versus benign inflammatory, including potential infectious or parasitic disease, differentials for which cannot be differentiated without tissue sampling.
- Diffuse lymphadenopathy enhanced hyperechoic mesenteric fat and free fluid is suggestive of a diffuse inflammatory disease, i.e., vasculitis versus infiltrative neoplasia with a neoplastic effusion versus viscous organ rupture/leakage versus other. Given the reportedly normal albumin, hypoalbuminemia can't be blamed for the fluid. Cardiac disease can't be definitively ruled out as a cause.

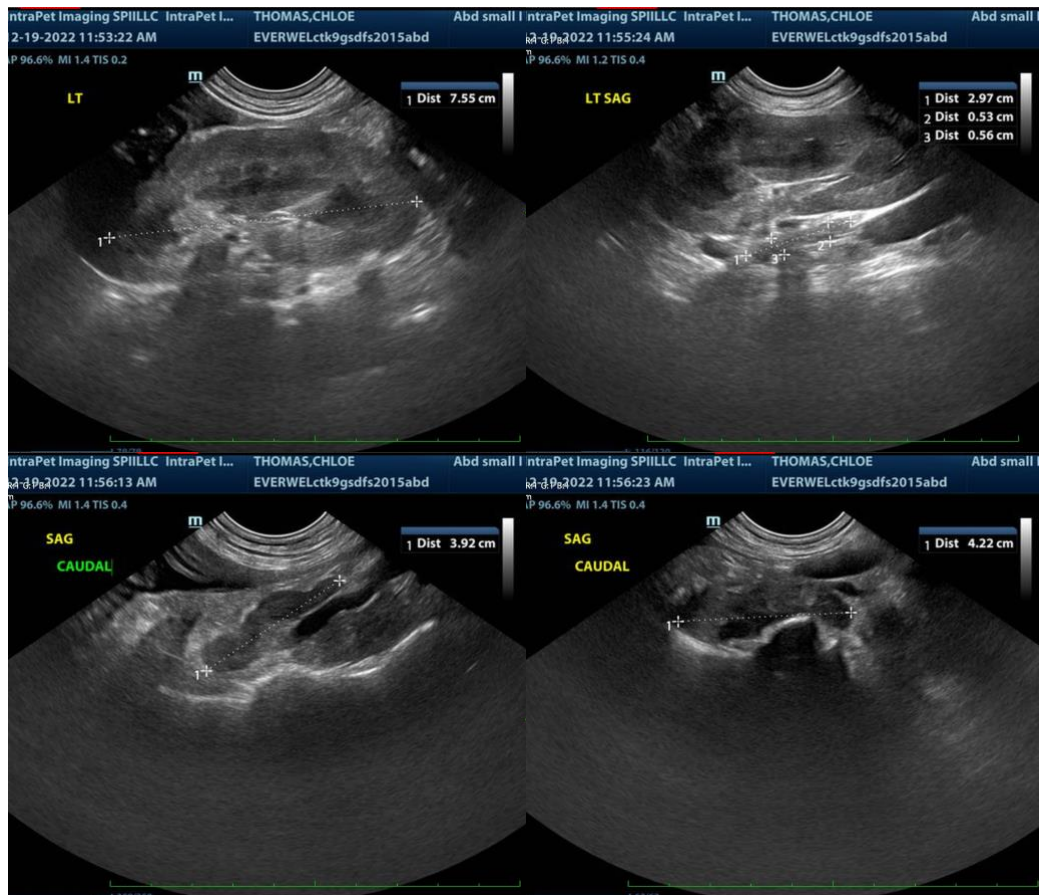
Secondary Findings

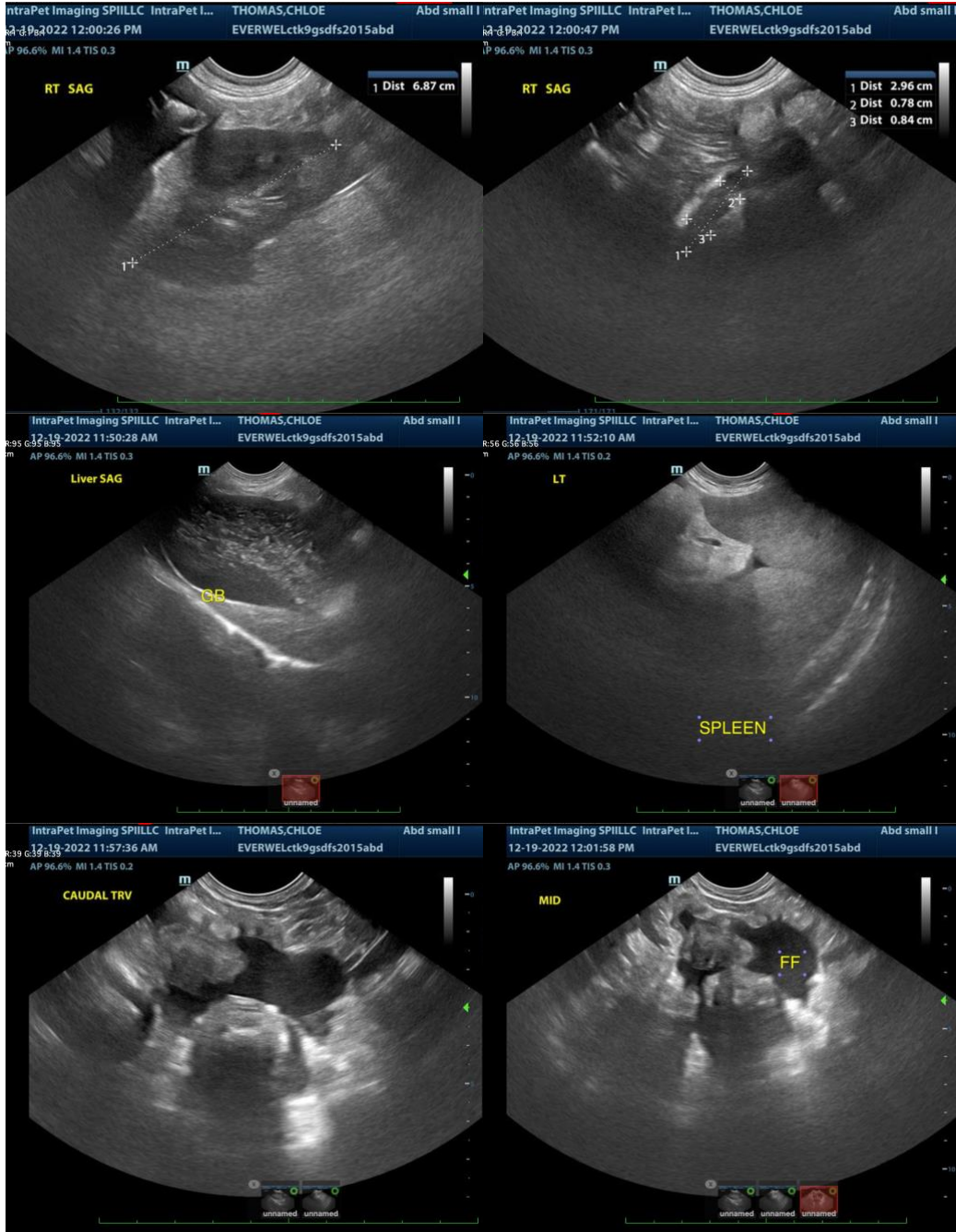
- Moderate gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

It is difficult based in the diffuse free fluid and enhanced clumped mesentery, etc., to localize this pathology to one particular organ and/or underlying etiology without further diagnostics.

Recommendations include fluid analysis for both cytology, as well as culture and sensitivity if indicated based on cytology results, as well as a fine needle aspirate of the spleen if patients coagulation status is appropriate. Additionally, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function. 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 echocardiogram could be considered if another underlying cause for the fluid is not determined. Ultimately, if a cytologic diagnosis is not obtained, advanced imaging in the form of an abdominal CT scan or potentially even exploratory laparotomy may be necessary for tissue sampling and further evaluation/diagnosis.







The information and recommendations provided are based on the images presented by the referring veterinarian. 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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