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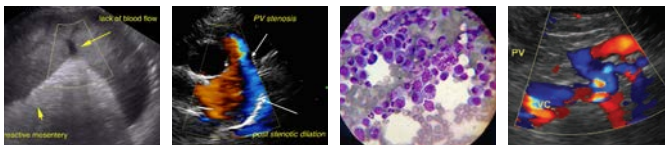


PATIENT

Lily Keeler

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

6 Years

WEIGHT

7 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Elaina Petrone

HOSPITAL NAME

Long Branch AH

REFERRING VET

Dr. Elaina Petrone

INVOICE

44073

DATE

1/10/23

PRESENTING CLINICAL SIGNS

Decreased appetite, lethargy, weight loss. Blood work-NSF.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. 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 calculi. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris.

The left kidney has a normal shape and size (4.04 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 (4.2 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 region of left adrenal (Cranial to left renal artery) is unremarkable but the adrenal is not distinctly visualized. No evidence of a mass effect.

The region of the right adrenal (between right cranial kidney and vena cava) is unremarkable, but the adrenal is not distinctly visualized. No evidence of a mass effect.

Spleen

The spleen is subjectively normal in size (0.95 cm), echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

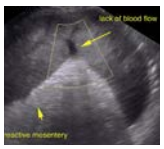
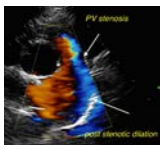
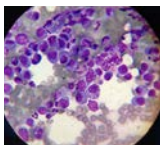
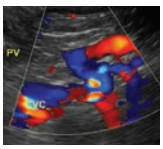
The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.36cm 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 uniform diameter with minimal fluid distension. Wall thickness is normal to slightly increased. Bowel loops follow a typical curvilinear path with distinct wall layering, but some areas display a prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measures 0.22 cm. Visualized peristalsis

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appears appropriate. There are some focal areas of small intestine that appear thickened with a “fuzzy” mucosa/muscularis layer. These sections of bowel measure at 0.35 cm.

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 prominent and hypoechoic as compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

There is a moderate amount of free abdominal fluid. There are clumps of prominent hypoechoic rounded lymph nodes. Examples of these lymph nodes measure 0.71 cm and 0.73 cm in diameter. The omentum is diffusely hyperechoic and irregular.

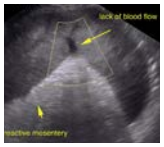
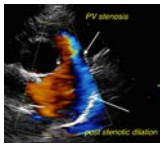
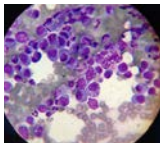
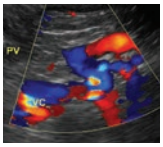
ULTRASONOGRAPHIC FINDINGS

- Echogenic debris in the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.
- Hypoechoic, prominent pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Mildly heterogeneous liver – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy.
- Focal areas of small intestine with wall thickening, mucosal fogging, speckling, and irregularity – Findings could be consistent with severe focal inflammation, edema, or could be consistent with infiltrative disease.
- Moderate volume free abdominal fluid – Recommend fluid analysis, cytology, +/- FIP testing.
- Moderate mesenteric lymphadenopathy – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is the general impression of inflammation in the abdomen with a moderate amount of fluid and hyperechoic irregular mesentery. Large focal sections of small intestine appear thickened and irregular with some persistent wall layering, but this is less distinct and irregular. These changes could be consistent with severe inflammation, infection, or infiltrative disease. Lymphoma or FIP would be high on the differential list. Recommend fluid analysis and cytology as well as a possible FIP PCR (Auburn University) to further investigate the possibility of FIP.

Additionally, there are enlarged lymph nodes, and the pancreas appears hypoechoic and prominent. Aspirates of the lymph nodes, pancreas and liver could also be considered. Unfortunately, it is not possible to definitively differentiate lymphoma from FIP based on ultrasound. Typically, this would require histopathology or clinical judgement (is it a young patient, are they febrile, are there ocular

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lesions, high globulin, etc.), as unfortunately there is a lot of crossover in possible clinical signs/imaging findings, biochemical changes in both of these disease processes.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

Obtaining a diagnosis is ideal in this situation, as there are some new effective experimental therapies for FIP that can have good results (GS-441524 and GC-376). VIN has a good discussion of these therapies and how to proceed, and the concerns about black market access/treatment with these medications.

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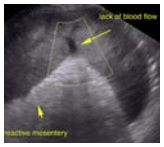
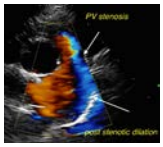
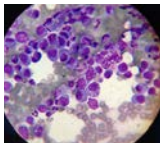
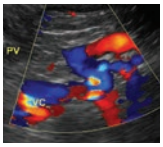

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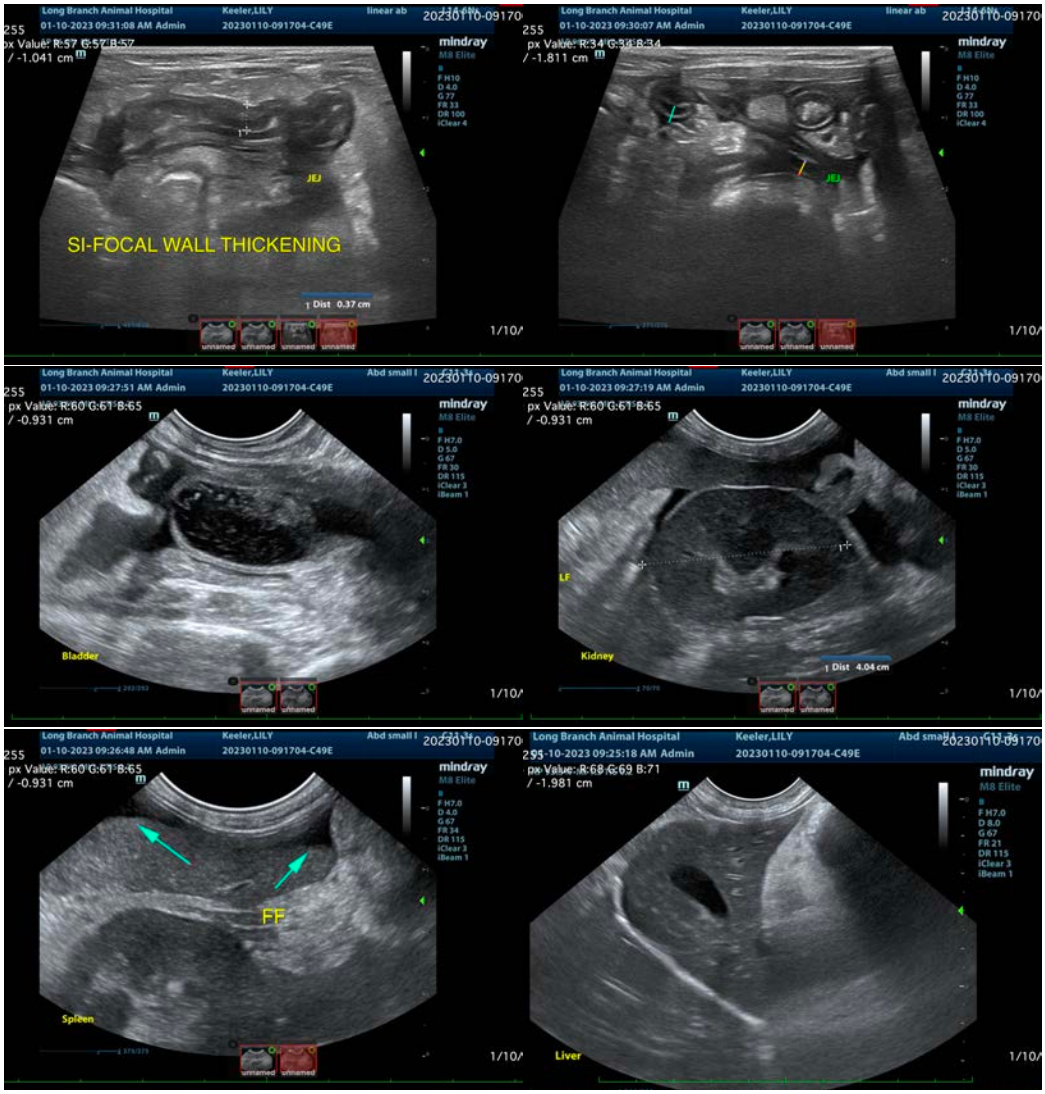

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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