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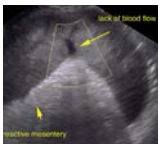
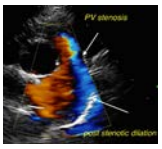
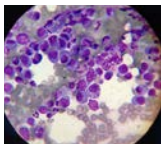
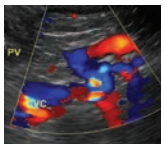

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1-800-838-4268 info@sonopath.com

PATIENT

Katniss Vanderhoef

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

12 Years

WEIGHT

5.13 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Alastair Westcott

HOSPITAL NAME

Dr. Alastair Westcott

REFERRING VET

Dr. Alastair Westcott

INVOICE

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DATE

9/9/21

PRESENTING CLINICAL SIGNS

Essentially presented for 24hrs anorexia, hiding and demonstrating an unusual rasping breathing pattern. Inappropriate and frequent urination. Lethargy Has been diabetic for 3 years and is currently on 2 units Caninsulin every 12 hours in combination with diabetic formula cat food. She does have relatively recent checkups where her blood glucose has been reasonable.
Abnormal PE/Chem/CBC/UA Results: QAR: Vital signs normal, lethargic, moderate increase in respiratory rate and inspiratory effort with normal lung sounds. Eyes normal, peripheral lymph nodes unremarkable, moderate to severe dental disease and gingivitis, no thyroid nodule palpated, cardiac auscultation NSF, abdominal palpation moderately ropey intestines otherwise unremarkable, pulses fair, perianal region normal, erythemic left ear and very pruritic, mild erythema right ear not so pruritic Blood Gas Analysis: High anion gap - gap acidosis present Mixed disorder CBC and leukogram is unremarkable Mildly toxic PMNs Hyperglycemia Low CREAT Marked hyperglobulinemia Mild bilirubinemia Mild elevation in LIPASE with an abnormal fPL Urinalysis: Extreme hyperglycemia with ketonuria Strip proteinuria Otherwise unremarkable

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 (4.2 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 (4.33 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 0.39 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 0.39 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 in size. The spleen echotexture is heterogenous and mottled, 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 large in size with smooth peripheral margins. The parenchyma is hyperechoic and homogenous in echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

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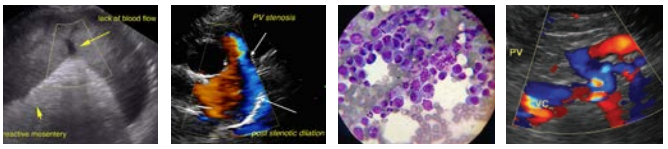

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The gallbladder is large and moderately distended. The wall of the gallbladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The common bile duct appears prominent and mildly tortuous, measuring approximately 0.28 cm and can be followed to the level of the duodenal papilla. No stones, mucus plugs or obstructions are visualized.

Gastrointestinal

The stomach is moderately dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering 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. Duodenum wall measured 0.28 cm. Jejunum wall measured 0.23 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 liquid fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

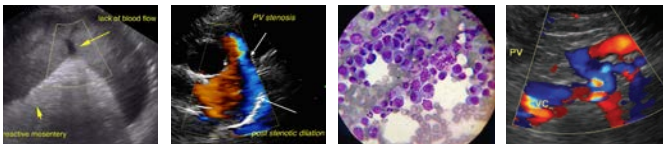
The pancreas is prominent, hypoechoic and mottled with surrounding hyperechoic mesentery. In the right limb, there are nodular irregularities consistent with small pancreatic nodules, measuring approximately 0.3 cm x 0.15 cm in size. These findings are consistent with moderate pancreatitis and likely benign nodules, but neoplasia cannot be ruled out. The pancreatic duct is prominent and mildly dilated at 0.16 cm.

Free Abdomen

Evaluation of the peritoneal cavity revealed very scant anechoic free fluid. Mild mesenteric lymphadenopathy noted. The mesenteric lymph nodes in the ileocecal junction are prominent, measuring 0.36 cm. The omentum is generally of normal uniform echogenicity, but is hyperechoic in the area around the pancreas and the ileocecal junction.

PRIMARY FINDINGS

- Large, mottled spleen – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- Large, hyperechoic liver – Hepatic changes are non-specific and could be consistent with hepatic lipidosis, inflammatory/infectious disease, infiltrative neoplasia, or other hepatopathy.
- Hypoechoic, nodular pancreas with surrounding mildly hyperechoic mesentery – 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.
- Prominent muscularis layer to the small intestine – The small intestinal wall changes are most



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consistent with an inflammatory process (i.e., inflammatory bowel disease) with a low possibility of emerging lymphoma.

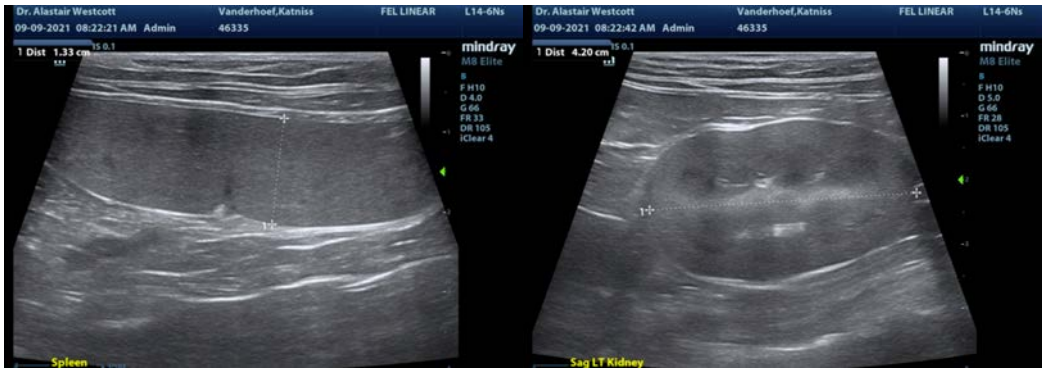
SECONDARY FINDINGS

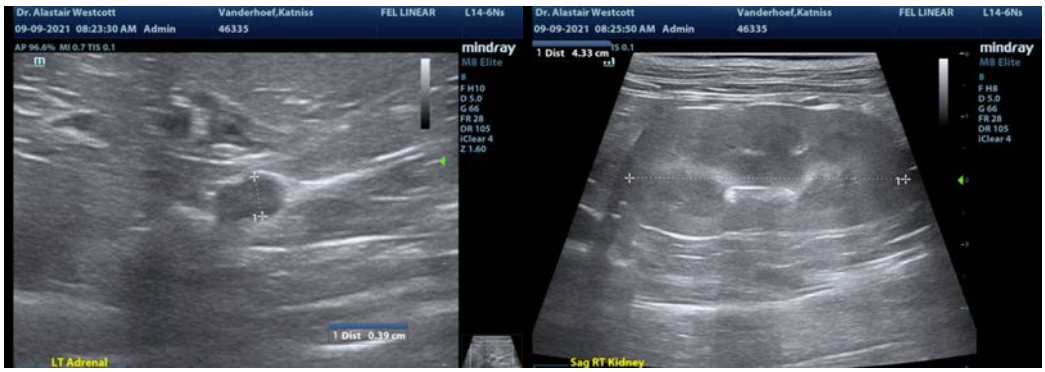
- Echogenic debris in the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.
- Mild bile duct dilation – Dilation of the common bile duct could be consistent with a functional obstruction (i.e. primary hepatic disease resulting in hepatocellular swelling) or with an extrahepatic bile duct obstruction (ie. choledocholith, bile duct tumor, pancreatic disease, other).
- Mildly fluid dilated stomach – Correlate with feeding history. This could be consistent with ingesta, delayed gastric emptying, or partial gastric obstruction (none visualized).

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

This patient has a bright large liver, an inflamed nodular pancreas, and a prominent muscularis layer to the small intestine. This could be consistent with Triaditis. I would consider running a GI panel with a quantitative fPLI, B12 and folate level to look for additional evidence of pancreatic disease and small intestinal disease. Additionally, with the reported globulin elevation, a cancerous process would have to be considered such as lymphoma or multiple myeloma. Recommend a fine needle aspirate of the liver and spleen if coagulation parameters permit this. Recommend 3-view chest radiographs and a protein electrophoresis to try to determine how likely a cancerous versus inflammatory condition is.

Consider treatment for pancreatitis with special focus on nutritional support (feeding tube if needed) while awaiting additional test results.





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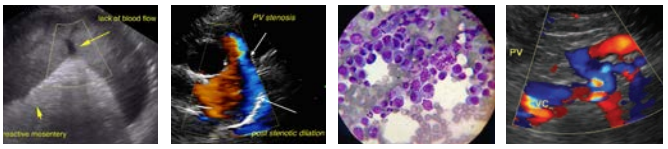

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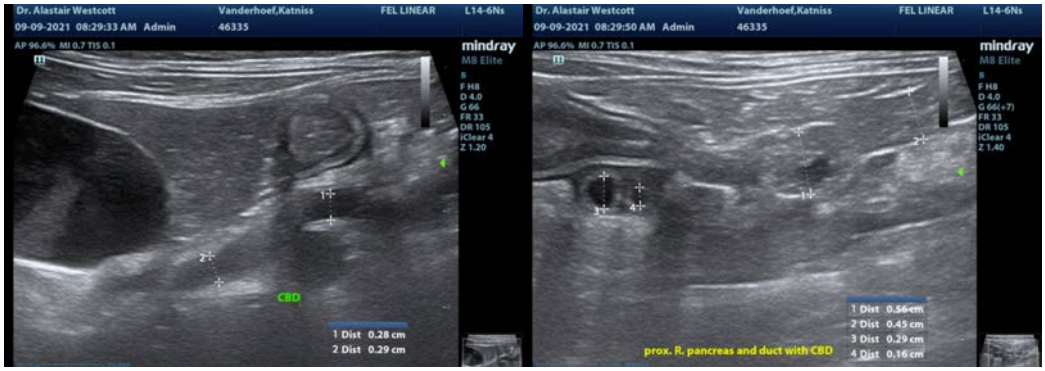

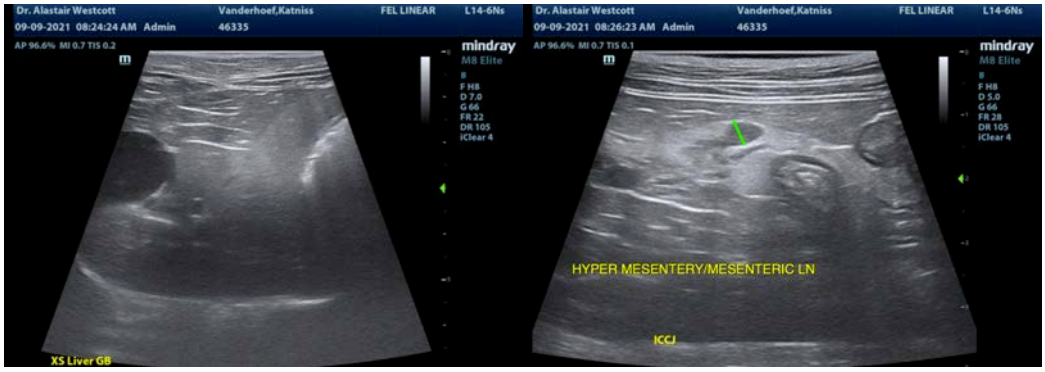

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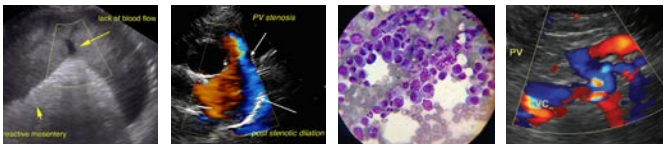

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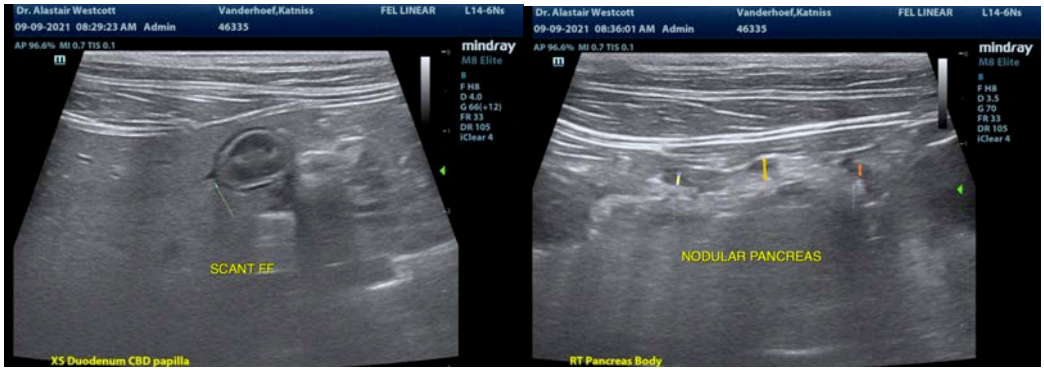

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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