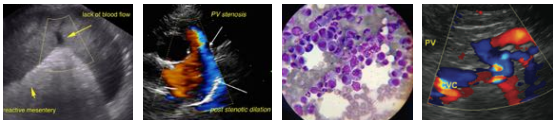

PATIENT

Frisky Smith-Zarth

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

11yrs

WEIGHT

15.9lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

Amazon Park Animal Clinic

REFERRING VET

Dr. Jones

INVOICE

10158

DATE

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PRESENTING CLINICAL SIGNS

Presented to EVH on 3/20 for cystitis - hematuria only finding, also some weight loss. Was treated with buprenorphine, gabapentin, and diet change was discussed. Came back on 3/28. Senior panel and radiographs performed. No stones seen. Blood work was normal, but urine showed hematuria, increased white blood cells and epithelial cells. On recheck on 4/4, bladder is small, thickened, and painful. Patient has lost more weight, and is dehydrated, with fever of 103.7 (no fever on other two visits).

Abnormal PE/Chem/CBC/UA Results: UA from 3/28 showed USG 1.038, RBC >100/HPF, WBC 20-30/HPF, Epithelial cells 6-10/HPF, occasional granular cast present. Current Medications None Radiographic Findings I will send radiograph.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The urinary bladder is diffusely irregularly thickened and hyperechoic. The maximal thickness visualized measures at 0.75 cm. The area of the trigone, ureteral papillae and approximal urethra are less involved, with no focal mass, lesions, or calculi observed.

The left kidney is borderline large. (4.75 cm) Overall echogenicity is slightly hyperechoic with poor 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 is large and irregular with decreased corticomedullary distinction at 6.02 cm and surrounding perinephric inflammation. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

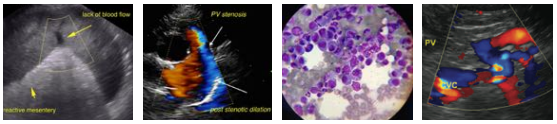
The left adrenal gland is large in size measuring 0.76 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is large in size measuring 0.94 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 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



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The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. 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. The jejunum measured 0.3 cm in diameter. Visualized peristalsis appears appropriate. There is a focal section of bowel that appears focally thickened with complete loss of layering. In this region the bowel wall measures at 0.9 cm in thickness and this irregular area extends for at least 4.1 cm of bowel.

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

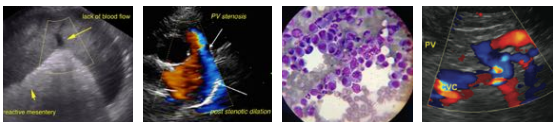
The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did reveal scant free abdominal fluid. No lymphadenopathy. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is severely hyperechoic around the right kidney and the abnormal bowel loop.

PRIMARY FINDINGS

- Thickened irregular section of bowel with complete loss of wall layering, creating a mass effect. Findings are very concerning for infiltrative disease to the bowel. Primary differentials would be round cell neoplasia, carcinoma, other.
- Irregularly thickened urinary bladder wall. Primary differential in this situation would be cystitis. Recommend urinalysis and culture. If infection is not present, then consider biopsy of the bladder wall looking for underlying neoplastic or inflammatory changes.
- Bilateral adrenomegaly. The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended. Given the concern for round cell neoplasia the enlargement could be due to



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infiltrative disease or stress associated with systemic illness.

- Large irregular hyperechoic kidneys with decreased corticomedullary distinction and surrounding inflammation. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Changes could be consistent with acute renal change, infection, or infiltrative disease.
- 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.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is focal irregular thickening of the bowel wall, which is highly concerning for infiltrative neoplasia. Recommend a fine needle aspirate of the bowel wall.

Additionally, both kidneys appear large, irregular, and hyperechoic with decreased corticomedullary distinction and surrounding inflammation. These changes could be consistent with acute renal disease, infection, or infiltrative disease. Additionally, the spleen is large and mottled consider a fine needle aspirate of the spleen.

The urinary bladder wall appears thickened and irregular. The primary differential would be diffuse cystitis but given the history and if a urine culture is negative (despite being off antibiotics for at least 5-days) then consider biopsy of the bladder wall looking for underlying neoplastic change.

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

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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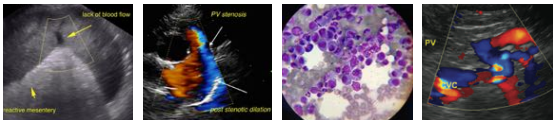

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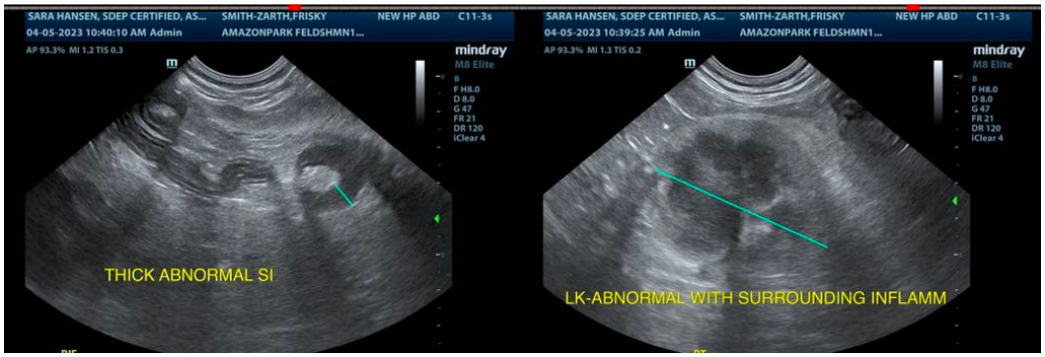

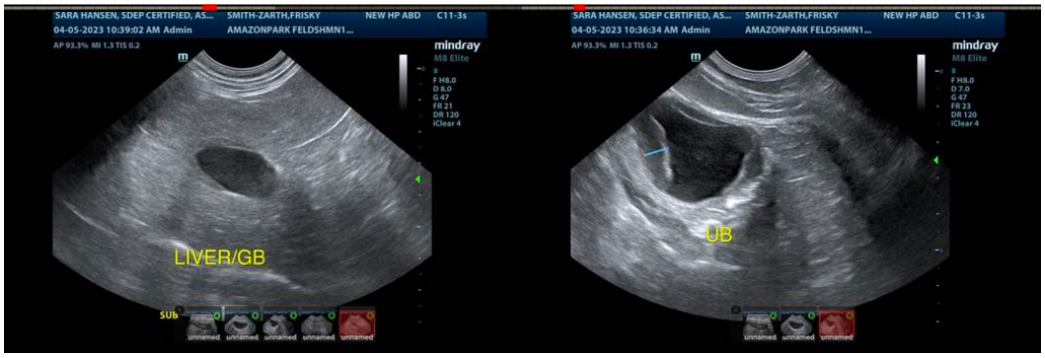

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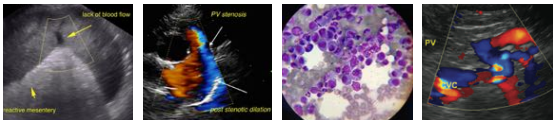

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