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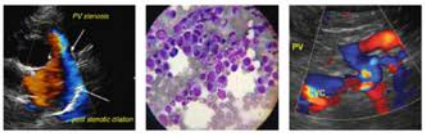

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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PATIENT

Yoko Grabowski-Khairullah

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

14 Years

WEIGHT

3.7 kg

INTERPRETED BY

Jessica Midence, DVM, DACVIM (SAIM)

IMAGING PERFORMED BY

Amy Mayhew, LVT

HOSPITAL NAME

SVS Imaging MI

REFERRING VET

Dr. Alex Schechter

INVOICE

45336

DATE

2/17/23

PRESENTING CLINICAL SIGNS

2 week history of intermittent vomiting, 2x UTI with hematuria,
Abnormal PE/Chem/CBC/UA Results: BW at pDVM showed elevated ALT and mild anemia

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder mucosa, trigone, and visible urethra are normal in thickness and there is no evidence of mucosal irregularities. The bladder lumen is distended with a large volume of anechoic urine and bladder thickness is considered normal for volume of urine. No masses, inflammatory changes or calculi are observed.

The left kidney is normal in size, shape and architecture with smooth peripheral margins and measures 3.86 cm. There is normal corticomedullary distinction, but the cortex is diffusely significantly hyperechoic. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The right kidney is normal in size, shape and architecture with smooth peripheral margins and measures 3.68 cm. There is normal corticomedullary distinction, but the cortex is diffusely significantly hyperechoic. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is normal in size (0.31 cm). The left adrenal gland has normal shape and it is normal in appearance and echogenicity.

The right adrenal gland is normal in size (0.38 cm). The right adrenal gland has normal shape and it is normal in appearance and echogenicity.

Spleen

The spleen has a scalloped edge that can be a normal aging change. The spleen measures borderline thick at 1.1-1.2 cm at the hilus. Otherwise, the echogenicity is normal. There are a few hyperechoic speckles consistent with myelolipomas/fibro fatty change. The splenic vasculature is normal without signs of congestion or thrombosis.

Liver

The liver is subjectively normal in size with normal contours, structure, with smooth peripheral margins. The echogenicity appears mildly hyperechoic with slightly coarse echotexture and normal portal markings. No overt evidence of inflammatory, infiltrative or regenerative pathology is evident. The visible portions of the vasculature and biliary tract appear normal. No pathological hepatic lymphadenopathy observed.

The gallbladder had a moderate volume of anechoic bile. The wall is a normal thickness and smooth. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The gastric lumen is empty. The stomach wall is of normal wall thickness with some variability due to rugal folds. There is normal gastric wall layering. There are no masses or focal lesions observed and the pyloric outflow tract appears patent.

Most sections of small intestines measured mildly thick with the duodenum measuring 0.27 cm (normal I up to 0.24 cm). Jejunum measures 0.34 cm (normal is up to 0.25 cm). The ileum measures normal at 0.27 cm. Wall layering throughout the small intestine is distinct and preserved. In many loops of jejunum, the

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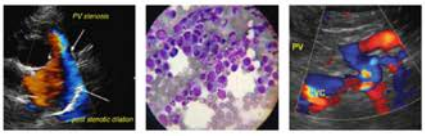

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muscularis layer is thick. The lumen of the small intestines was empty with no signs of ileus, obstruction or foreign material. No focal lesions.

The ileocolic junction was visualized and had normal intact wall layering and is subjectively of normal thickness. The surrounding ileocolic lymph nodes, however, were prominent and hypoechoic with the largest measuring up to 0.58 cm with surrounding hyperechoic fat.

Sections of colon are visualized with formed fecal material and gas shadowing distally. The colon measures normal. The colon measured normal at 0.12 cm with completely formed feces within. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The left pancreas was prominent and hypoechoic with very mild hyperechoic fat surrounding. The pancreatic duct was dilated, though within normal limits considering the age of the cat.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. The mesenteric lymph nodes are diffusely hypoechoic and mildly enlarged with slightly hyperechoic bright mesenteric tissue surrounding. The omentum is of normal uniform echogenicity.

PRIMARY FINDINGS

- Thickened intestines with lymphadenomegaly, consistent with chronic enteropathy
- Mild pancreatitis
- Hyperechoic coarse liver

SECONDARY FINDINGS

- Hyperechoic renal cortices
- Borderline splenomegaly – rule out extramedullary hematopoiesis versus lymphoid hyperplasia, round cell neoplasia can't be ruled out but is considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The changes in the abdomen would be consistent with inflammatory disease of the pancreas, intestinal tract, and liver (so called "Triaditis"). Infiltration of these same organs with small cell lymphoma is also possible, and unfortunately cannot be sonographically distinguished. The liver is mildly bright, which is likely reactive to the intestinal and pancreatic disease.

The overall thickening of the intestines can be seen with either acute or chronic enteropathies, but the thickened muscularis supports chronic intestinal disease such as inflammatory bowel disease, food allergy, or small cell lymphoma. The ileocolic and mesenteric lymph nodes were also mildly enlarged with surrounding inflammation, suggesting a reactive process. Ongoing treatment for vomiting with antiemetics is appropriate. Consider a chronic enteropathy workup including a GI panel and possible intestinal biopsies, given that inflammatory bowel disease and small cell lymphoma cannot be distinguished by ultrasound alone. A diet trial could also be considered. Aspiration of the mesenteric lymph nodes could be considered, though they are only mildly enlarged and this is often low yield in these types of cases.

The changes to the spleen are likely reactive to the disease and the rest of the abdomen, though FNA could be considered if the patient continues to vomit. Alternatively, repeat ultrasound of the spleen can be considered once the patient is clinically improved.

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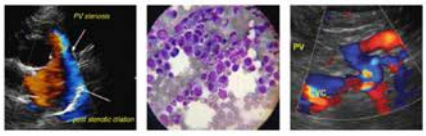

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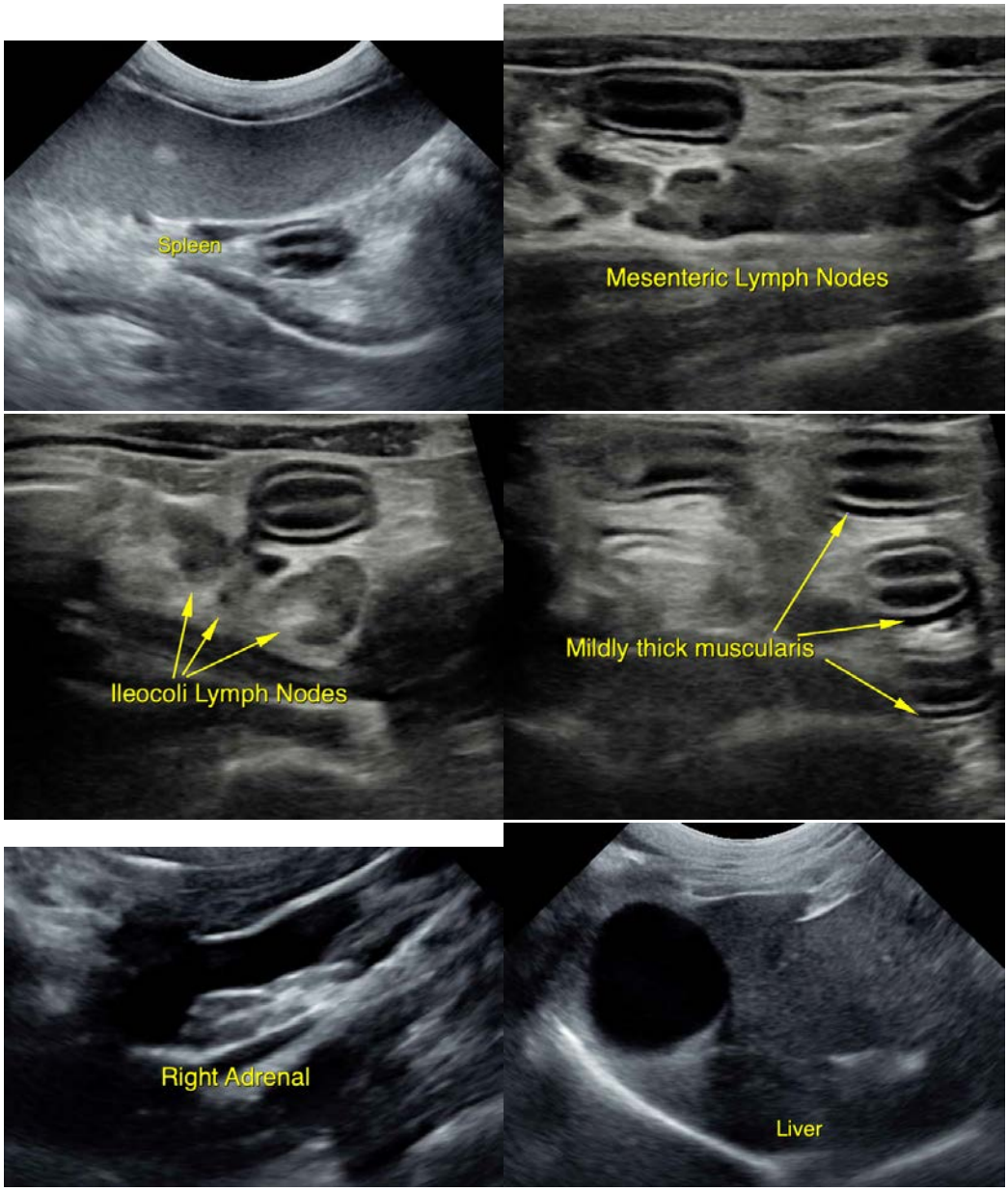
Lastly, the renal cortices are quite hyperechoic, and while this can be normal in cats secondary to lipid deposition, it can also be seen with nephritis and a component of chronic kidney disease. Continue to monitor for the development of chronic kidney disease.



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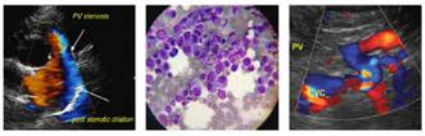

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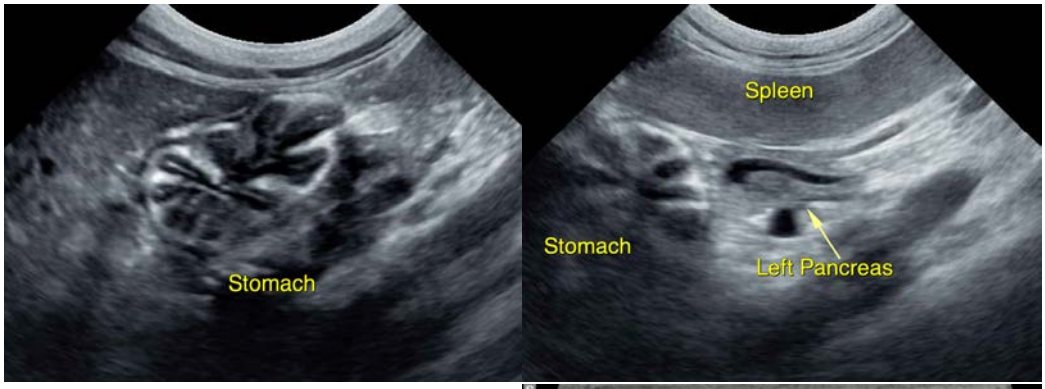

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Jessica Midence, DVM, DACVIM (SAIM)

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