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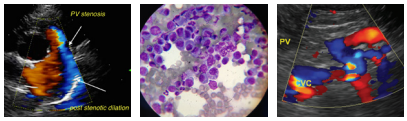

SonoPath
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DATE

2/16/22

PATIENT

Remy Pearson

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

10/1/15

WEIGHT

6.1 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Timonium AH

REFERRING VET

Dr. Kauder

INVOICE

35699

PRESENTING CLINICAL SIGNS

Barely eating past 5 days. Seen here 2/1 for pyelonephritis- treated with Veralflox & Cerenia. Responded well while on meds (7 days). Then stopped eating 5 days ago.

Current Medications: Veraflox (pradofloxacin) 0.9ml once daily for 7 days (2/1-2/8)
Cerenia 16mg- 1/4 tab once daily x 3 days, then prn for nausea (2/1- present).
Lab Results: TODAY (2/16/22)- HCT 24 (checked twice), TP 7.4, Creat 2.4; ALT normal, Alk Phos normal.
2/1 HCT 40, TP/ TP 6.8, SDMA 15, Creat 2.4, BUN 35, T4 21, UA- USG 1.018, wbc >50/hpf, rbc 13/hpf.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Patient was sedated with Dexdomitor.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. 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 cystic calculi.

The left kidney has a normal shape and size (2.45 cm) with pyelectasia at 0.25 cm. Overall echogenicity is slightly hyperechoic with mildly reduced corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.22 cm) with pyelectasia at 0.38 cm. Overall echogenicity is slightly hyperechoic with mildly reduced 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 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 right adrenal gland is normal in size measuring 0.46 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 normal in size, 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 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 thickened and hyperechoic at 0.17 cm. Luminal contents are 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 measured 0.29 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 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 mottled 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

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There are occasional prominent mesenteric lymph nodes measuring 0.4, 0.32 cm. The omentum is generally of normal echogenicities.

PRIMARY FINDINGS

- Mildly reduced corticomedullary distinction in both kidneys with bilateral pyelectasia – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

- Prominent muscularis layer to the small intestine – The small intestinal wall changes are most consistent with an inflammatory process (i.e., inflammatory bowel disease) with a low possibility of emerging lymphoma.

- Mild mesenteric lymphadenopathy – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

- Prominent mottled pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

SECONDARY FINDINGS

- Hyperechoic, thickened gallbladder wall – The significance of this is unclear, as there is no surrounding inflammation or excessive gallbladder debris present.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

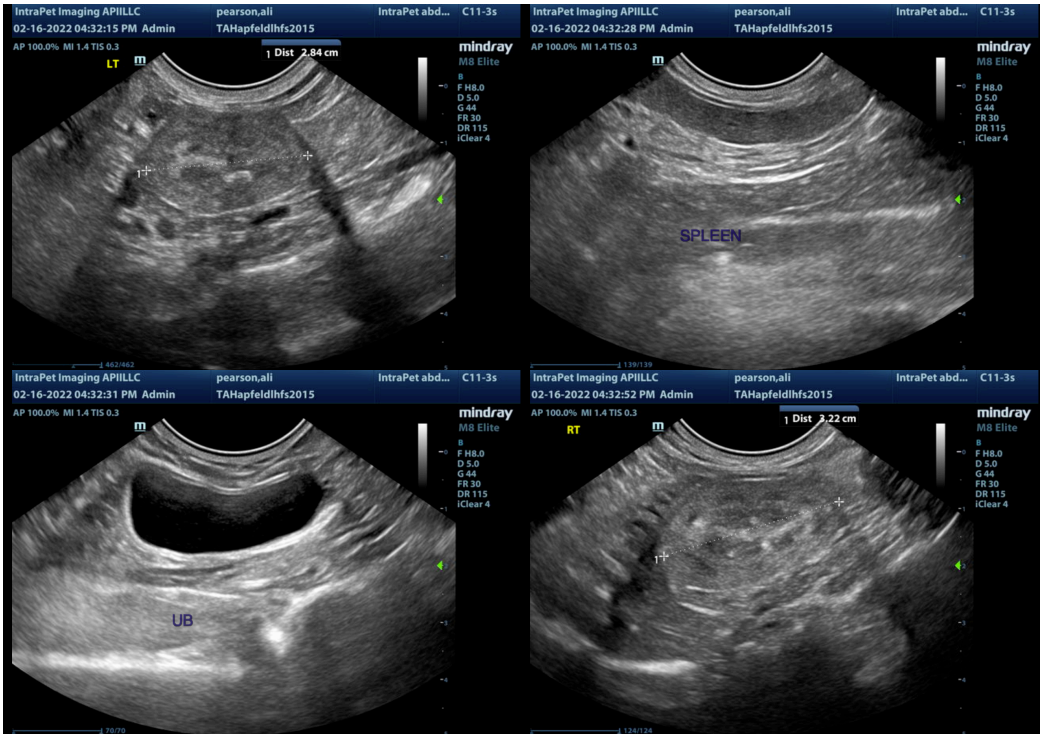
No complicating factors are visualized within the urinary tract such as stones or masses. There is mild bilateral pyelectasia present. Although not all cases of pyelonephritis culture as positive, try to strictly treat based on culture and sensitivity results in an effort to reduce resistance and increase the efficacy of treatment. I typically will culture mid treatment to ensure efficacy and treat for 4-6 weeks with a case of pyelonephritis, culturing again one week after cessation of antibiotics. Probiotic use during the use of systemic antibiotics is very helpful.

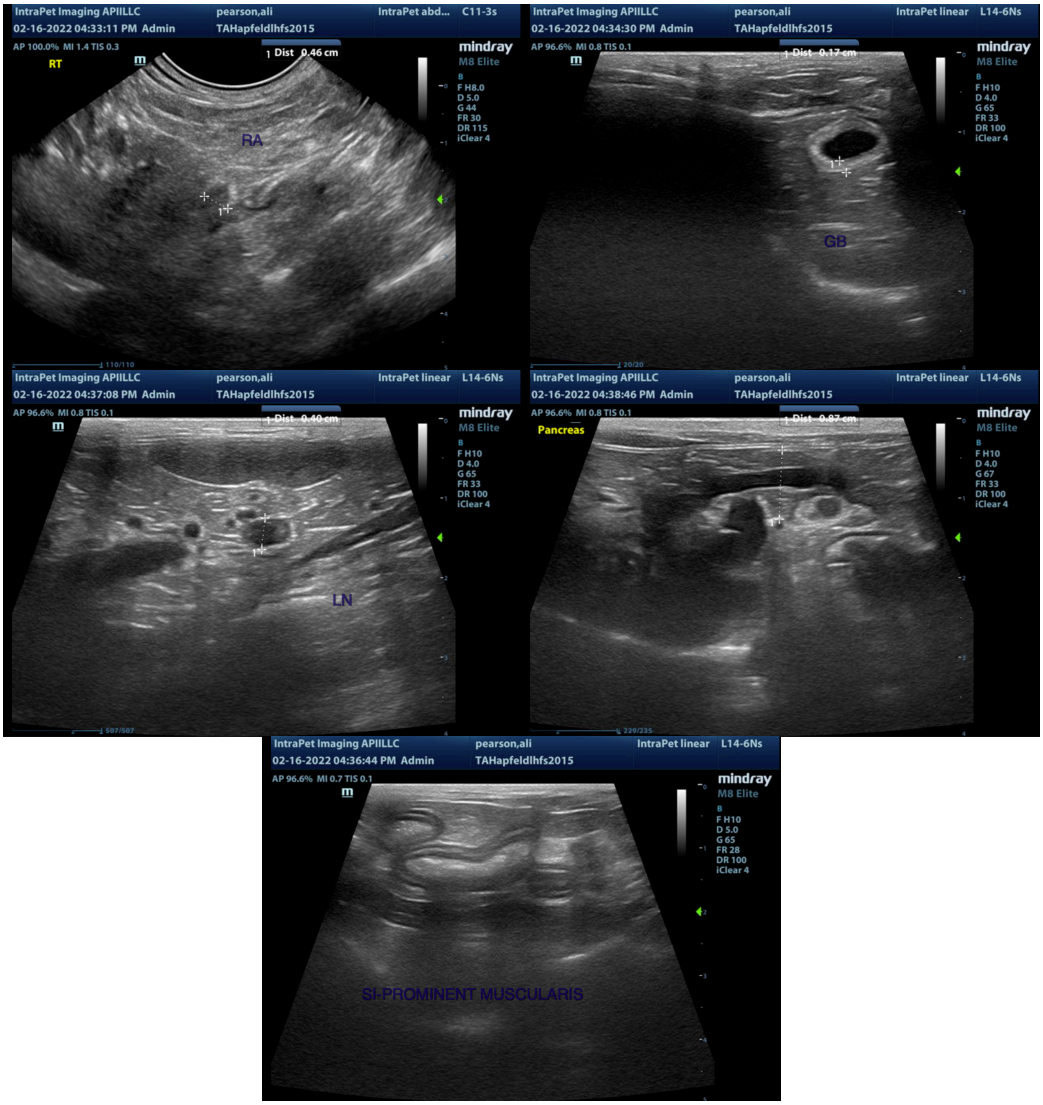
There are some mild changes associated with the GI tract. The pancreas is prominent, and the muscularis layer of the small intestine is thickened. These can be indicators of underlying inflammation.

- Consider a GI panel to Texas A&M for a qualitative fPLI, TLI, cobalamin and folate to further evaluate the pancreas and small intestinal changes observed.
- Consider a hydrolyzed protein/novel protein diet.
- Consider chronic probiotic therapy.
- If it is assessed that the clinical signs are not due to the kidneys, and they are persistent, consider obtaining GI biopsies.

It could be difficult to determine if the reduction in appetite is secondary to the pyelonephritis or secondary to primary GI disease. This depends largely on how active you thick the pyelonephritis is (i.e., is there active infection, inflammation and azotemia, fever, etc.). If you think this is the GI disease and empirical treatment is not helpful, I would resist empirically trying steroids due to the pyelonephritis, and consider obtaining GI biopsies, particularly in such a young cat.

Consider three view thoracic radiographs to rule out 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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