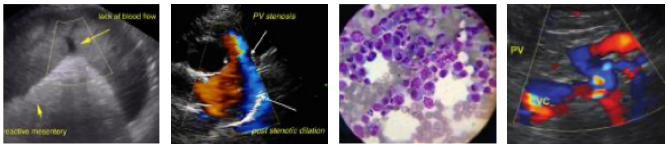
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Merlin Brennan

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

13 years

WEIGHT

5.7 kg

INTERPRETED BY

Tam Mengine, DVM, DABVP (canine/feline practice)

IMAGING PERFORMED BY

Harmon

HOSPITAL NAME

Wilvet South

REFERRING VET

Harmon

INVOICE

12906

DATE

4.30.23

PRESENTING CLINICAL SIGNS

History: 4/28, presented for V+ food and foam, V+ so many times O lost count. Went to RDVM, received cerenia, SQF, and abx. Cont. bleeding from SQF site for 1+ hrs, brought pt in here.

Abnormal lab-work values: 4/28 EPOC: iCa 1.13, LAC 4.74, BUN 70, Crea 3.59, GLU 203, HCT 18%. rest WNL: pH 7.318, Na 150, K 3.6, Cl 121
CBC: HCT 19.3%, Retic 63.8k, WBC 27.47k, Neut 20.97k, suspect bands, Mono 2.26k, Eos 0.05k, rest WNL. PLT 356k
Chem17: Glu 229, Crea 3.23, BUN 69, rest WNL
Blood type: B
UA: USG 1.020, pH 5.0, PRO trace, BLD 4+. Sedivue: WBC 5/hpf, RBC >50/hpf, suspect rods/cocci, suspect non-hyaline casts.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. A small amount of echogenic luminal sediment is present, which is freely-movable. The ureteral papillae, trigone and pelvic urethra are of normal appearance, and the ureters are not visible (normal). No masses, calculi or mucosal irregularities are noted. Urethra visualized to 3.0 cm.

Both kidneys are hyperechoic and exhibit poor corticomedullary differentiation. Infarcts are seen within the renal cortex of both kidneys. There is mild to moderate dilation of the renal pelvis with anechoic contents. There is mineralization visible in the renal cortex of both kidneys. There is no evidence of hydronephrosis. The proximal ureter are not visible (normal). The left kidney is 4.5 cm in length. The right kidney is 4.0 cm in length.

Adrenal Glands

The left adrenal gland is identified in its normal location. It is of normal size and shape with appropriate parenchymal echogenicity and normal phrenic vasculature. The left adrenal gland height is 4.2 mm at the at the caudal pole. The right is not distinctly visualized, but the region appears unremarkable.

Spleen

The spleen is of appropriate size and has a normal, homogenous parenchyma with a smooth, continuous capsular surface. The splenic vasculature is normal with no evidence of congestion or thrombosis, and blood flow through the splenic hilus appears normal. Thickness at the splenic hilus is normal at __ cm).

Liver

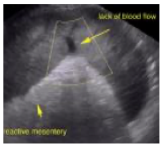
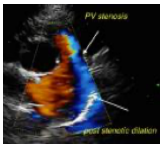
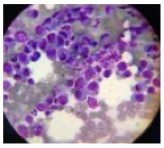
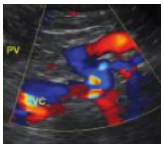
The liver is diffusely hyperechoic and subjectively enlarged. The portal and hepatic vasculature are of normal size and appearance with no evidence of congestion or thrombosis.

The gallbladder is moderately distended with anechoic contents. The wall was thin and continuous with no focal lesions. The cystic and common bile ducts are normal / not visible.

Gastrointestinal

The stomach is moderately distended with normal ingesta and shadowing foreign material. The gastric wall is 2.6 mm with normal deviations due to rugal folds and exhibits appropriate wall layering. The pylorus is of normal appearance. There is no evidence of obstruction.

The small bowel has diffuse changes to the normal 1:3 muscularis to mucosa ratio. Wall measurements are increased up to 4.4 mm for duodenum and 4.1 mm for jejunum. Overall wall layering is preserved. Intestinal motility appears normal.

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The visible portions of the colon are of normal thickness, up to 1.7 mm, with intact wall layering. The ileocecal junction is visualized and appears normal.

Pancreas

The areas of the limbs and body of the pancreas are isoechoic to the surrounding mesenteric fat, with normal capsular appearance. There is no evidence of peripancreatic inflammation. The pancreatic duct appears normal.

Free Abdomen

There is no evidence of free fluid within the peritoneal cavity. The omentum and intra-abdominal fat are of appropriate echogenicity. Enlarged abdominal lymph nodes are not observed. The aortic trifurcation has normal blood flow with no evidence of thrombosis.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Bilateral degenerative renal changes with mineralization, infarcts and pyelectasia
- Diffuse changes to the small bowel consistent with infiltrative bowel disease

Secondary Findings

- Small amount of bladder sediment, typical of a small blood clot
- Gastric foreign material, typical of a hairball

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The presence of pyelectasia raises the concern for pyelonephritis, though mild renal pelvic dilation can also be seen with recent fluid therapy or as a chronic degenerative change. Recommendations include:

- Urinalysis with culture
- Blood pressure measurement
- If pyelonephritis is suspected, then empiric antimicrobial therapy may be started while awaiting culture results. The International Society for Companion Animal Infectious Diseases (ISCAID) Working Group recommends fluoroquinolones or cefpodoxime as initial empiric treatment choices, with a total therapy duration of 10 - 14 days.
- Chronic cases of pyelonephritis may require longer courses of treatment than the recommended 10 -14 days. Historically, treatment for up to 4-6 weeks has been recommended, with follow up culture shortly after discontinuation of therapy.
- Given the level of azotemia, IV fluid therapy is recommended, with serial rechecks of kidney blood values to see whether improvement is noted.

The anemia noted is most likely secondary to the chronic renal disease, and may respond to treatment with either erythropoietin or darbepoetin. A CBC with path review, and potentially bone marrow aspirate, would be needed to definitively determine the cause of the anemia.

The changes to the small bowel are typical of infiltrative bowel disease. This finding may be incidental to the kidney disease, but if weight loss and ongoing gastrointestinal signs are present, then these findings may also be significant. Additional recommendations include:

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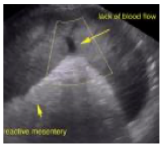
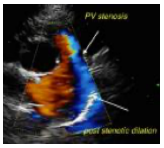
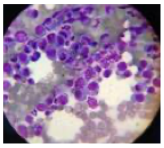
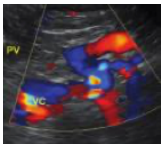

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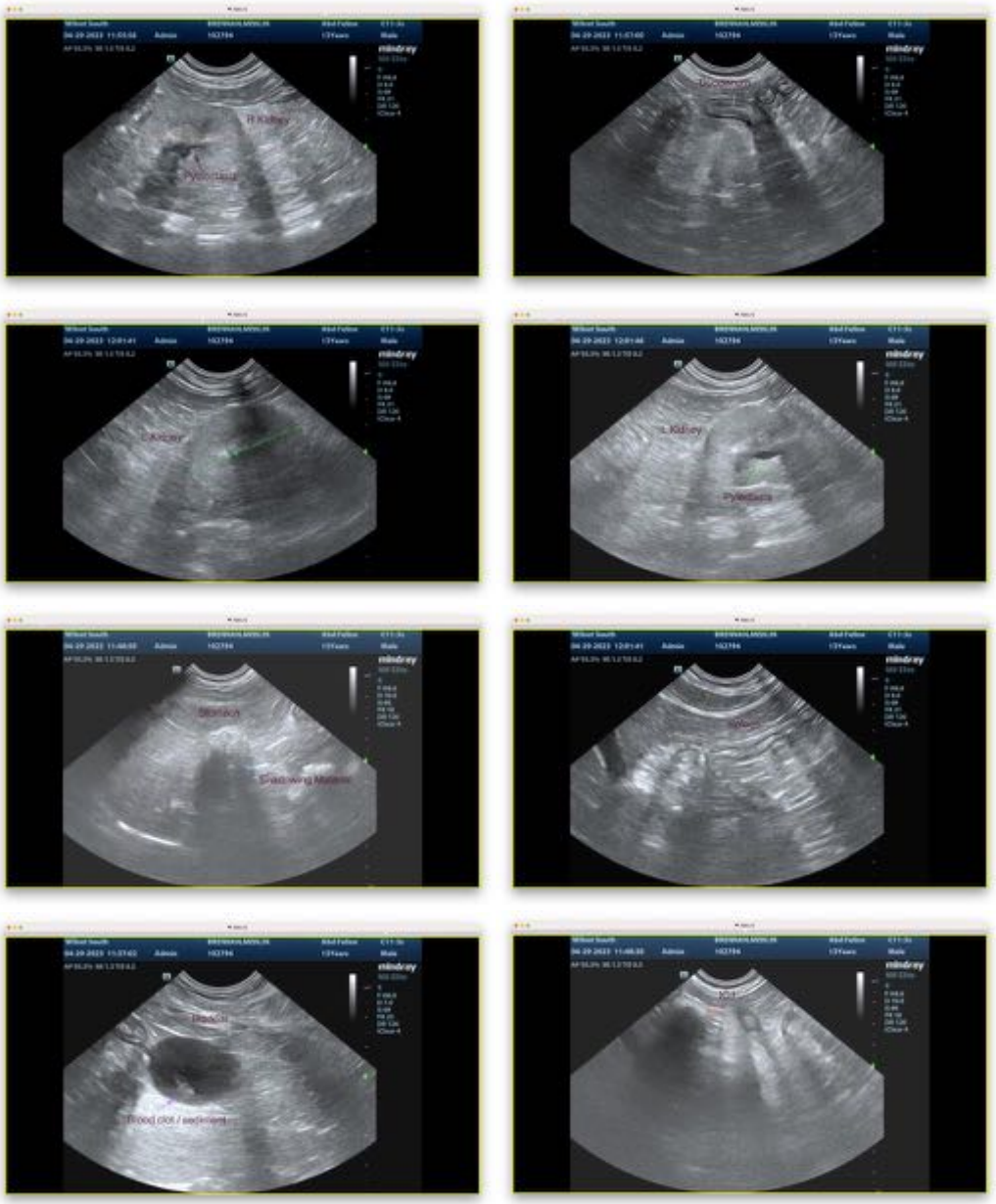
- Fecal parasite testing and empiric fenbendazole treatment
- Trials with a novel protein or hydrolyzed diet
- A complete GI panel, or empiric cobalamin supplementation
- Empiric therapy with prednisolone at 2-4mg / kg daily could be considered if a diet trial is unsuccessful.
- Definitive diagnosis would require biopsy of the affected tissue, ideally with intra-operative ultrasonographic guidance. If there is concurrent lymphadenopathy, ultrasound-guided sampling of the lymph node using a 25 or 22G needle could be considered.



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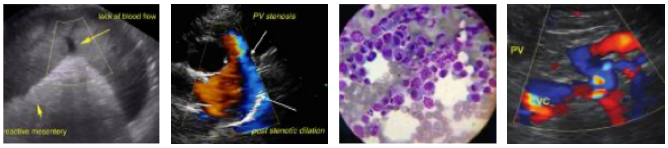

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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