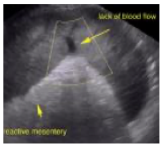
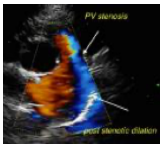
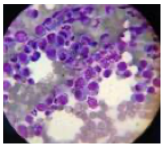
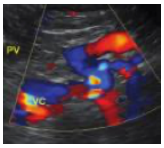
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Max Bermudez

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

9 years

WEIGHT

16 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Tam Mengine

HOSPITAL NAME

Stoney Creek VH

REFERRING VET

Dr. Natalie David

INVOICE

13935

DATE

8.3.23

PRESENTING CLINICAL SIGNS

History: Recent 2-pound weight loss and hematuria, on lab-work Ca++ 12.2, Creat 2.4 (normal BUN / SDMA). UA = SpGr 1.040, 100RBC, rods and CaOx crystals. Chest rads normal, iCa++ pending . Hx of eosinophlic granuloma

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. A large amount of hyperechoic 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 exhibit appropriate cortico-medullary differentiation. There are multiple nephroliths present within the right renal pelvis. Both proximal ureters are dilated and there is a 2.5 mm urolith identified within the left ureter (approximately 2.6 cm distal from the renal pelvis). There is no evidence of pyelectasia, or hydronephrosis. The left kidney is 4.5 cm in length. The right kidney is 3.6 cm in length.

Adrenal Glands

The adrenal glands are both identified in their normal locations. They are normal in size and shape with appropriate parenchymal echogenicity and normal phrenic vasculature. The left adrenal gland height is 4.0 mm at the caudal pole. The right adrenal gland height 4.2 mm at the caudal pole.

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 8.6 mm.

Liver

The liver is of appropriate size and shape, with sharp borders and a mildly coarse parenchymal echotexture that is hypoechoic to the spleen. The portal and hepatic vasculature are of normal size and appearance with no evidence of congestion or thrombosis.

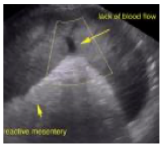
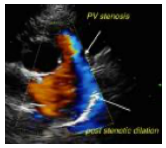
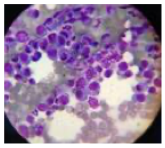
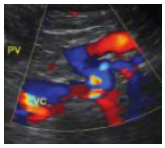
The gallbladder is moderately distended with anechoic contents and a trace amount of freely-moveable echogenic sludge. The wall is thickened to 1.5 mm without evidence of rupture. The cystic and common bile ducts are normal.

Gastrointestinal

The stomach is empty. The gastric wall is subjectively normal in thickness, and exhibits appropriate wall layering, but cannot be accurately measured due to normal deviations of the rugal folds. The pylorus is of normal appearance.

The small bowel has diffuse changes to the normal 1:3 muscularis to mucosa ratio. Wall measurements are increased up to 3.2 mm for duodenum and 2.5 mm for jejunum. Overall wall layering is preserved. Intestinal motility appears normal.

The visible portions of the colon are of normal thickness, up to 1.9 mm, with intact wall layering. The ileocecal junction is visualized and appears normal.

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

PATIENT

Max Bermudez

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

9 years

WEIGHT

16 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Tam Mengine

HOSPITAL NAME

Stoney Creek VH

REFERRING VET

Dr. Natalie David

INVOICE

13935

DATE

8.3.23

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 mesenteric lymph nodes were mildly enlarged, with normal short to long axis ratio and appropriate echogenicity, and are surrounded by hyperechoic omental fat.

ULTRASONOGRAPHIC FINDINGS

Findings

- Bilateral nephroliths, with partial obstruction evident in the left ureter
- Diffuse infiltrative bowel changes, with reactive mesenteric lymph nodes
- Bladder sediment, which is likely secondary to the passage of nephroliths

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

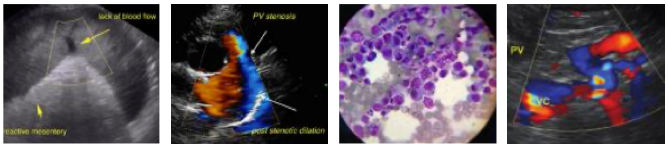
There is no evidence of complete ureteral obstruction in today's ultrasound, so fluid therapy is recommended to attempt to flush the remaining nephroliths, as well as the ureterolith in the left ureter. It may be that the presence of nephroliths is secondary to the hypercalcemia, or it may be independent of that.

The changes in the gastrointestinal tract are suggestive of infiltrative bowel disease, including both inflammatory bowel disease or low grade gastrointestinal lymphoma. The mildly thickened gallbladder wall may suggest that "triaditis" is present. However, in the absence of elevated liver values, this is likely not an active concern. Recommendations include:

- 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.

A full hypercalcemia panel to Michigan State University may be helpful in determining the cause of the hypercalcemia. Given the patient's age, idiopathic hypercalcemia would be the most common cause. Empiric steroid therapy may be of benefit in the treatment of idiopathic hypercalcemia, as well as inflammatory bowel disease; so if a definitive diagnosis is not pursued, this would be a reasonable course of therapy.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Max Bermudez

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

9 years

WEIGHT

16 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Tam Mengine

HOSPITAL NAME

Stoney Creek VH

REFERRING VET

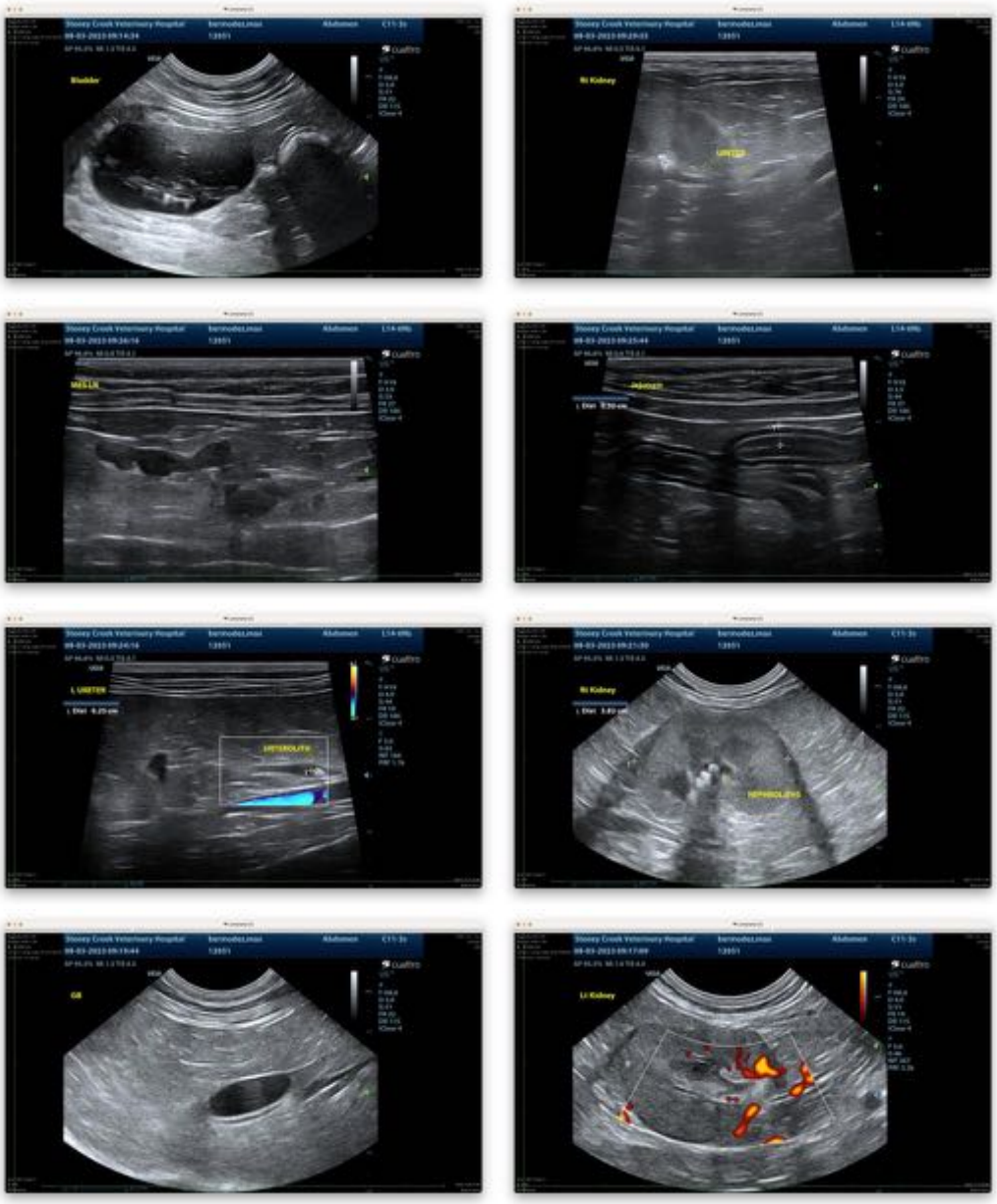
Dr. Natalie David

INVOICE

13935

DATE

8.3.23



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.

Tam Mengine, DVM, DABVP (canine/feline practice) info@SonoPath.com