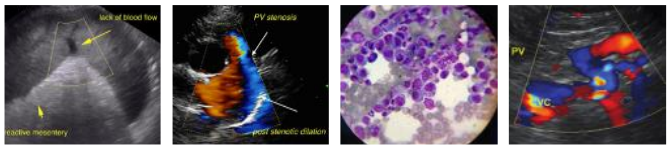
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Sam Michelman

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

8 Years

WEIGHT

7.11 Pounds

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Westwood RVH

REFERRING VET

Dr. Hartwick

INVOICE

16153

DATE

6/17/22

PRESENTING CLINICAL SIGNS

History: Buprenex on board to facilitate ultrasound. Renal failure - diagnosed 4/7/22. BUN 104, creat. 9.9, Phos. 9.5, K+ 2.6, HCT 28, T4 2.0. Managed with SQ fluids EOD, Phos. binder, renal K+ gel. K/D diet. Urine C & S (neg). Recheck blood work on 4/28: BUN 86, creat. 3.6, phos. 8.14, K+ 3.1. Patient was doing well untl 6/15 when appetite decreased, and patient started hiding. Current treatments: IVFs and famotidine.

Abnormal PE/Chem/CBC/UA Results: 6/15/22: BUN 104, creat. 5.1, phos. 12.4, K+ 2.6, HCT 25.8%. U/A on 4/7/22: USG 1.008, sed (neg), urine C&S (neg), USG 1.008. Recent U/A pending.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized, and anechoic urine was present. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal. The pelvic urethra was imaged 3.0 cm beyond the cystourethral junction.

The **kidneys** presented a relatively uniform cortical hyperechogenicity when compared to the renal medulla, spleen and liver. No overt masses were noted. Corticomedullary definition was nebulous, and the ratio favored the cortex slightly. The ureters were not visible and assumed to be normal. These changes are most consistent with chronic interstitial nephritis yet infiltrative disease could not be entirely ruled out without biopsy though neoplasia is not suspected. Cortical infarcts were noted in both kidneys with regional cortical collapse. This is an end-stage change. Minor pyelectasia was noted in both kidneys. Blood flow to the kidneys was subjectively subnormal. The right kidney measured 3.29 cm. The left kidney measured 3.71 cm.

Adrenal Glands

The **adrenal glands** were bilaterally swollen and hypoechoic. This is most consistent with stress-induced hyperplasia. The left adrenal gland measured 0.5 cm. Slight heterogeneous changes were noted in the right adrenal gland. The right adrenal gland measured 0.46 cm.

Spleen

The **spleen** in this patient was uniform, yet volume contracted. Hydration status should be assessed.

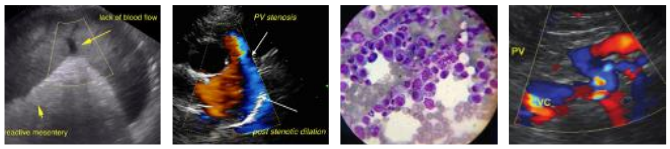
Liver

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

Gastrointestinal

The **gastric wall** was mildly thickened, likely owing to azotemic gastritis.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Sam Michelman

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

8 Years

WEIGHT

7.11 Pounds

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Westwood RVH

REFERRING VET

Dr. Hartwick

INVOICE

16153

DATE

6/17/22

Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some minor parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxyphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

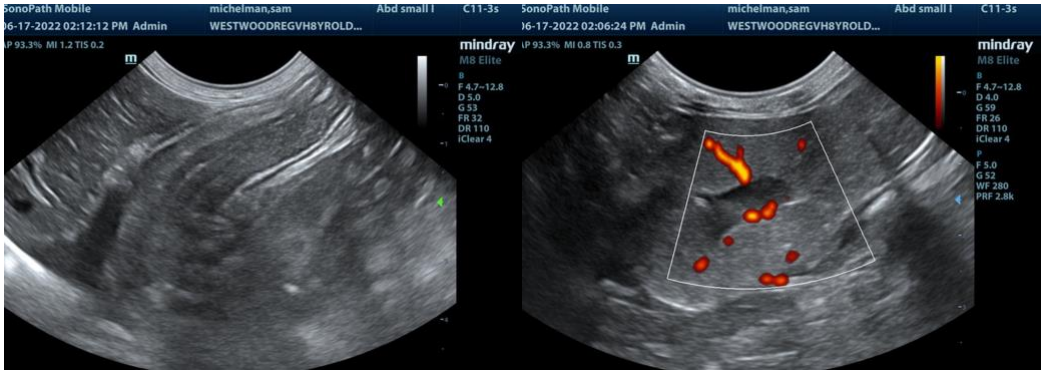
- End-stage renal disease/interstitial nephrosis pattern with cortical infarcts and remodeling
- Volume contracted spleen
- Adrenal gland stress with heterogeneous changes noted in the right adrenal gland
- Gastric wall thickening

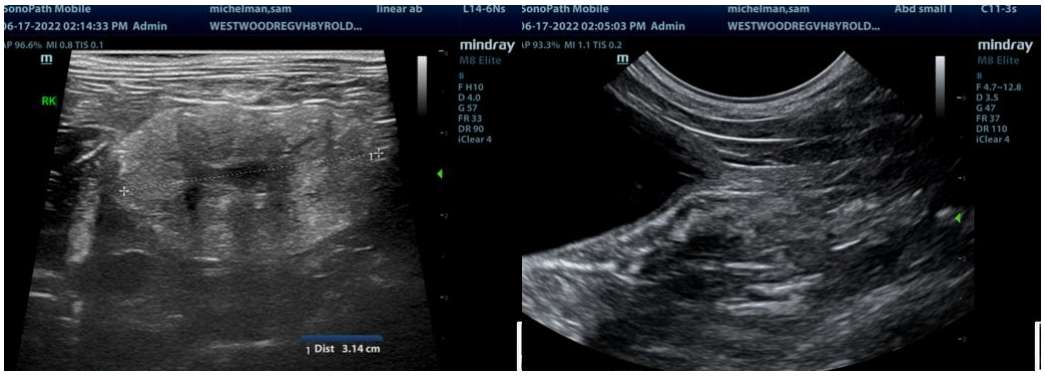
Secondary Findings

- Age-related pancreatic changes

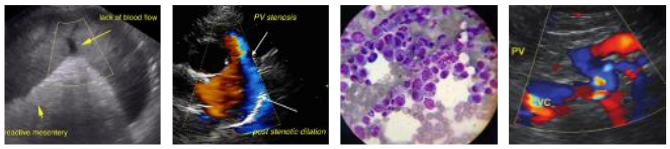
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Hydration status should be evaluated in this patient, as the spleen is significantly volume contracted. 72-hour IV fluid protocol could be considered to assess the potential for response to the azotemia. Blood pressures and urine culture and reassessment of the clinical status. Prognosis is guarded to poor.





SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Sam Michelman

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

8 Years

WEIGHT

7.11 Pounds

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Westwood RVH

REFERRING VET

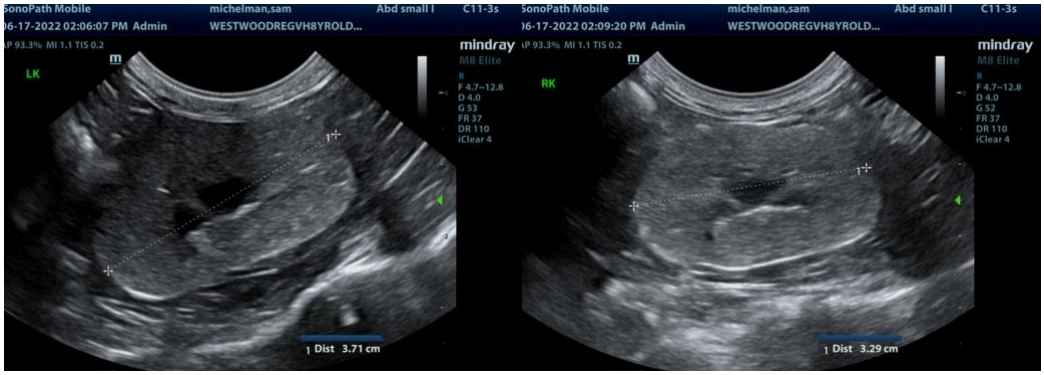
Dr. Hartwick

INVOICE

16153

DATE

6/17/22



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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
info@SonoPath.com