



PATIENT

Selena Markowitz

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

16 Years

WEIGHT

8.3 lbs

INTERPRETED BY

Eric Lindquist, DMV,
DABVP (CFM), Cert.
IVUSS

IMAGING PERFORMED BY

Dr. Kathleen Laux

HOSPITAL NAME

Rondout Valley
Veterinary Associates

REFERRING VET

Dr. Kathleen Laux

INVOICE

75100

DATE

5/13/26

PRESENTING CLINICAL SIGNS

Hx of pyelonephritis (AMC /). Presented with lower urinary tract signs 4/3/26. Signs resolved but UA still active. Hyporexia and losing weight and soft stool

Abnormal PE/Chem/CBC/UA Results: neut 11.5, lymph 1072, amylase 2217, BUN/creat wnl, SDMA 14.7 UA pyuria, hematuria, cocci (Enterococcus only on C&S)-new culture pending today sp Gr 1.020

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 2.0 cm beyond the cystourethral junction.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex. Mineralization noted in both kidneys. Slight pyelectasia noted in the left kidney. Left kidney measured 4.32 cm. Right kidney measured 4.5 cm.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. Left measured 1.52 cm x 0.40 cm at the cranial pole and 0.46 cm at the caudal pole. Right measures 1.0 cm x 0.45 cm at the cranial pole and 0.48 cm at the caudal pole.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

Liver

The **liver** presented multifocal hypoechoic nodules measuring up to 0.54 cm. A left liver cyst was noted measuring 0.86 cm. A gallbladder calculus was noted, non-obstructive. Other smaller calculi also noted measuring up to 0.58 cm.

Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.



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Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some 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

- Moderate hepatic remodeling with nodular changes and gallbladder calculus, non-obstructive.
- Non-specific mild age related renal changes with slight nephrolithiasis and slight pyelectasia.
- Age related pancreatic remodeling.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Ursodiol therapy warranted. Bile acid profile warranted. Liver management based on FNA results and bile acid profile. Mild potential for underlying hepatic neoplasia.

Below is to be utilized for UTI with chronic urinary tract changes found sonographically that may serve as nidus of infection and history of chronic or recurrent UTI is an issue.

I recommend Clavamox as a first level approach to chronic UTI at 12.5-25 mg/kg bid owing to optimal urinary concentrations. If bacterial resistance is an issue then **Enrofloxacin** (5-10 mg/kg SID PO) (In patients > 1 year of age) in late pm after urination to maximize urinary concentrations overnight. This assumes that culture supports this use. Repeat **culture** at 3-4 weeks and continue treatment at least 7-10 days post negative urinary sediment and negative culture. *Note: Negative culture does not necessarily mean lack of UTI.* Other favorite antibiotics for chronic UTI include third generation Cefa (Ceftiofur or similar s.i.d. injectable) or Clavamox. If suspicion of occult urinary incontinence is present, then **phenylpropanolamine (PPA)** (1-2 mg/kg BID) can be employed long term to enhance urethral tone.

UTI Types

Guidelines for management of UTIs. The Veterinary Journal 247 (2019) 8-25

- Sporadic Bacterial Cystitis** - simple, uncomplicated UTI, hematuria, pyuria, bacteria. Dogs and older cats primarily. Tx analgesic + **Ab-clavamox** or similar 3-5 days. No effect? Ensure no comorbidity or C/S result non compatible
- Recurrent Bacterial Cystitis** - 3+ episodes within 12 months. Look for underlying cause. Incontinence, recessed vulva/pyoderma, prostatitis, calculi, neoplasia, resistant bacteria. Analgesia, and culture and refine AB Tx up to 14 days. Culture 5-7 days after stopping Tx.
- Upper UTI** - Pyelonephritis, ascending or embolic. Comorbidity check for diabetes, **cushings**, **lithiasis**, prostatitis, neoplasia. Fever, Lethargy, PU/PD, painful kidney on clinical exam. Tx Fluoroquinolone (Marbo/enro not cipro) or Cefa (Naxcel injectable in larger dogs), C/S, tx up to 4-6 weeks (debate). Culture 1-2 weeks after stopping AB.
- Subclinical Bacteruria** - Commensalism, treatment debatable and variable depending on scan.
- EL recs** - scan, evaluate, Tx AB 5-7 days negative sediment + negative culture. **Clavamox**, Cefa, Quinolone



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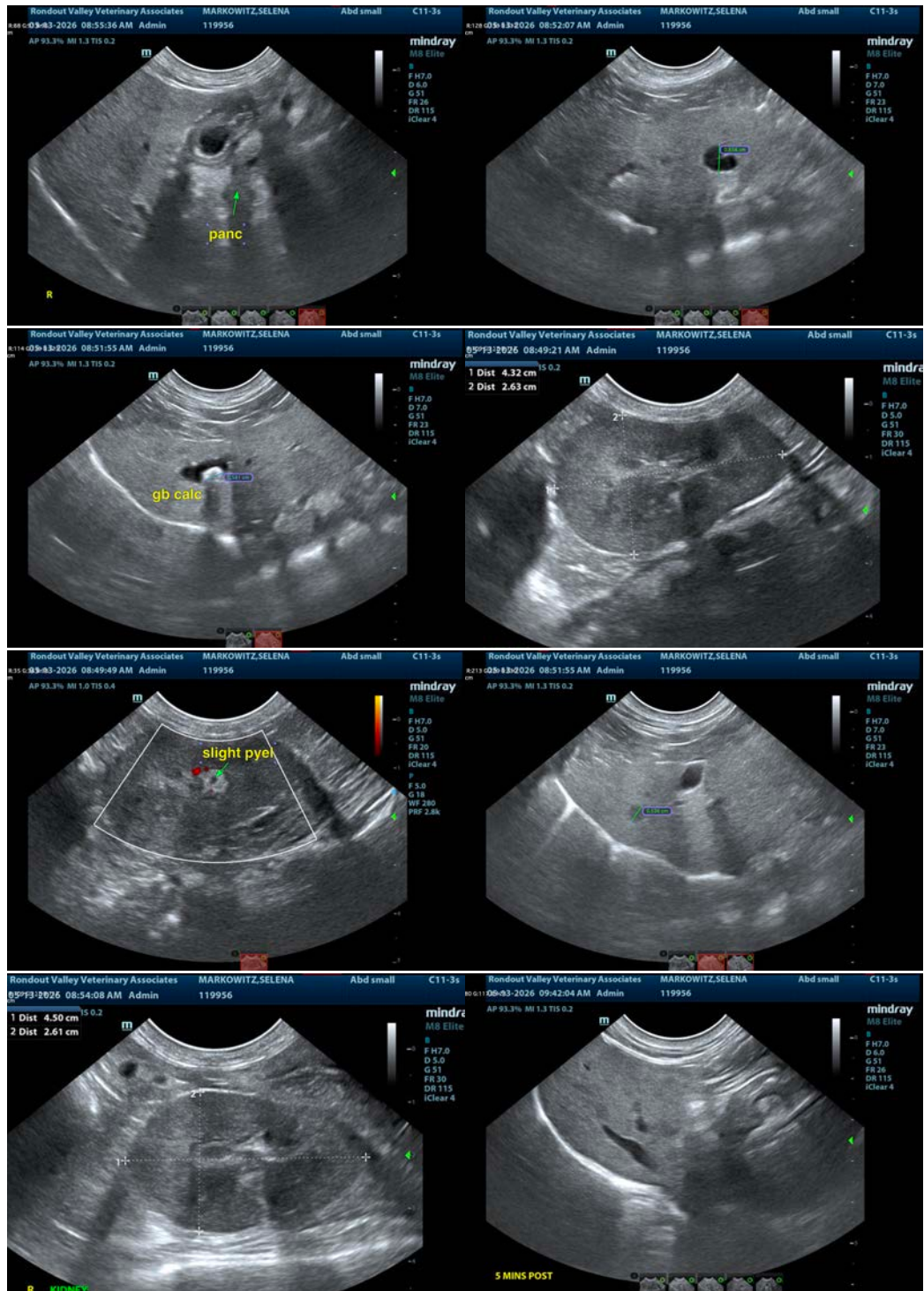
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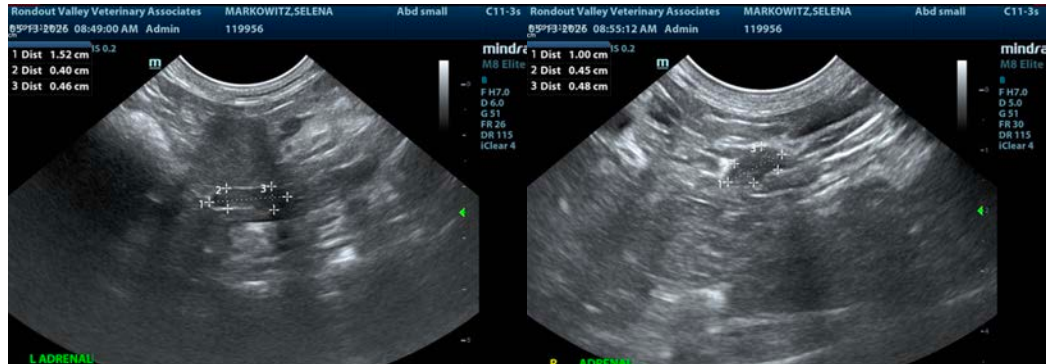
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP(CFM), Cert. IVUSS,
CEO, Owner, Founder -- SonoPath.com
info@SonoPath.com