



**PATIENT**

Emme Lowdermilk

**SPECIES**

Canine

**BREED**

Maltese Mix

**SEX**

Spayed Female

**AGE**

8 Years

**WEIGHT**

10.40 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Arun Katagulla

**HOSPITAL NAME**

434 Animal Hospital

**REFERRING VET**

Arun Katagulla

**INVOICE**

00000

**DATE**

3/18/23

**PRESENTING CLINICAL SIGNS**

History: pet had recurring UTI for the past 2 months ( diagnosed with UTI on senior bloodwork and urinalysis). pet was not exhibiting any signs of discomfort while urinating, no straining noticed, and normal urination according to owners.

Abnormal PE/Chem/CBC/UA Results: Bloodwork done in November is unremarkable but has UTI. UA done a month later has calcium oxalate crystalluria which hasn't resolved.

**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 **left kidney** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some mild 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 and no evidence of pelvic dilation was present. Pinpoint mineralizations were noted. The left kidney measured 3.9 cm.

The **right kidney** revealed complete hydronephrosis. The right kidney measured 4.8 cm. Minimal renal parenchyma was present. A 0.8 cm calculus noted at the renal pelvis is likely the cause of the chronic obstruction and secondary degenerative cortical changes.

**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. The left adrenal gland measured 5.0 mm. The right adrenal gland measured 0.6 cm.

**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. Hyperechoic lipogranulomatous changes were noted, not pathological.

**Liver**

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some minor age-related parenchymal remodeling was noted but likely not clinically significant at this time. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder presented some dependent debris with essentially normal contour. The cystic and common bile ducts were normal. No overt evidence of active inflammatory, infiltrative or regenerative pathology was noted but should be paired with current or



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past LE elevations regarding any clinical significance to this presentation. The hepatic lymph nodes were unremarkable.

## Gastrointestinal

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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.

## BREED

Maltese Mix

## Pancreas

## SEX

Spayed Female

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.

## AGE

8 Years

## ULTRASONOGRAPHIC FINDINGS

- Right renal nephrolithiasis with complete definitive hydronephrosis
- Minor degenerative left renal changes with slight pinpoint mineralizations
- Hyperechoic lipogranulomatous changes in the spleen, not pathological
- Age-related abdominal changes otherwise

## WEIGHT

10.40 Pounds

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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Eric Lindquist, DMV  
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Right nephrectomy is indicated. A 0.8 cm calculus noted at the renal pelvis is likely the cause of the chronic obstruction and secondary degenerative cortical changes. IVP could be performed to assess for any blood flow and potential function of the right kidney, however, there is no visible cortical parenchyma.

## IMAGING PERFORMED BY

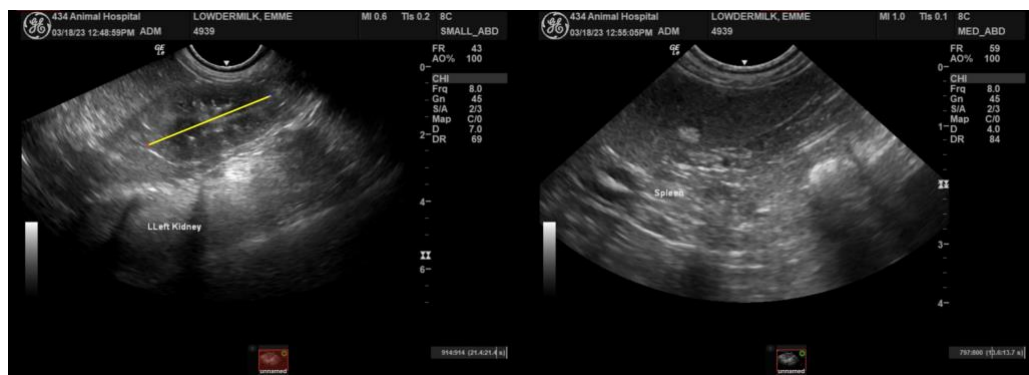
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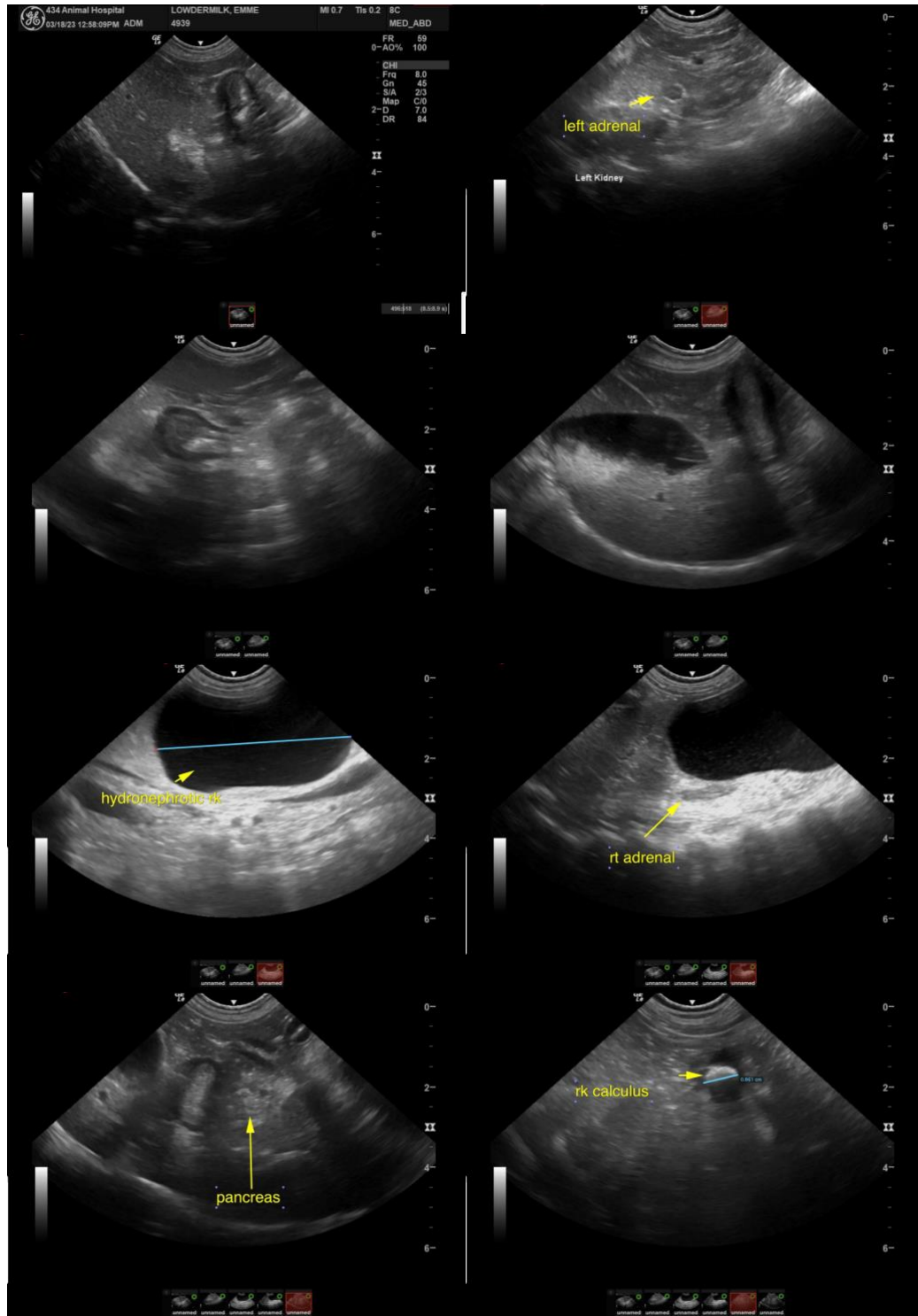
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I



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can be of any further assistance please contact me.

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