



**PATIENT PRESENTING CLINICAL SIGNS**

Kody Gomes

History: Drinking too much water. Current meds: Baytril and Denamarin  
Abnormal PE/Chem/CBC/UA Results: GOT 159, ALK 828, GTP 19, Glucose 158, UA: Glucose (trace), Protein high, Blood 2+. RBC high SG: 1.051

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED**

Maltese

**Urinary System**

The **urinary bladder** and visible pelvic urethra were unremarkable for the level of repletion presented. The urine, however, did present some mildly echogenic debris consistent with mucous, exfoliated cells from renal or bladder origin, and/or blood clots as these echogenic changes can all present similarly. This is often related to urinary tract infection but may represent simple evidence of exfoliated debris or sterile inflammation. Cystocentesis, urinalysis, +/- culture would be recommended to rule out and define any UTI.

**SEX**

Neutered male

The residual prostate measured 0.5 cm.

**AGE**

8 years

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 this age patient. Medullary structure differed distinctly from that of the cortex. Slight pyelectasia was noted in both kidneys. The left kidney measured 5.0 cm. The right kidney measured 5.57 cm.

**WEIGHT**

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**Adrenal Glands**

The right **adrenal gland** was 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 right adrenal gland measured 1.71 x 0.69 cm at the cranial pole and 0.54 cm at the caudal pole. The left adrenal gland was slightly swollen at the upper limits of normal and measured 1.74 x 0.59 cm at the caudal pole and 0.6 cm at the cranial pole.

**IMAGING PERFORMED BY**

Jessica Miller, RDMS

**HOSPITAL NAME**

All Creatures Great  
and Small

**Spleen**

The **spleen** was normal size and relatively normal contour with multifocal hyperechoic areas of mineralization. This is a benign change; however, can be related to Cushing's disease or other endocrinopathies.

**REFERRING VET**

Dr. Mitrovic

**Liver**

**INVOICE**

92011

Exam of the cranial abdomen demonstrated excessive **liver** size and swollen contour. Mild, coarse architecture was noted with increased portal markings and minor parenchymal remodeling is suggestive of an inflammatory component. Minor excessive GB debris was noted with the presence gallbladder dilation and precipitate without the overt formation of mucocele but this may be an issue in the future. Minor gallbladder polyps were noted, yet not pathological. This type of liver presentation typically is associated with slow and gradual SAP elevations with low-grade ALT rise. USG-FNA sampling is

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9/27/21



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encouraged if more aggressive LE profiles are present such as ALT > 200 or rapid rise in SAP. These presentations are usually reactive hepatopathies owing to other disease processes either endocrine (Diabetes, Hypothyroidism, Cushing's disease), "antigen surveillance" from the gut/pancreas, or idiopathic breed predisposed progressions.

**SPECIES**

Canine

**Gastrointestinal**

**BREED**

Maltese

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.

**SEX**

Neutered male

**Pancreas**

**AGE**

8 years

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 subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

**WEIGHT**

**ULTRASONOGRAPHIC FINDINGS**

Vacuolar hepatopathy with inflammatory component pattern.

**INTERPRETED BY**

Eric Lindquist, DMV  
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Minor gallbladder polyps.

Moderate degenerative renal changes with pyelectasia and cortical remodeling.

Cystic changes.

**IMAGING PERFORMED BY**

Jessica Miller, RDMS

Bladder debris.

**HOSPITAL NAME**

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and Small

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Full urinary work-up is warranted. I am most concerned about the renal structure and potential functional issues in this patient. The renal values should be monitored carefully. Assessment for urinary tract infection is warranted if not already performed with urine culture.

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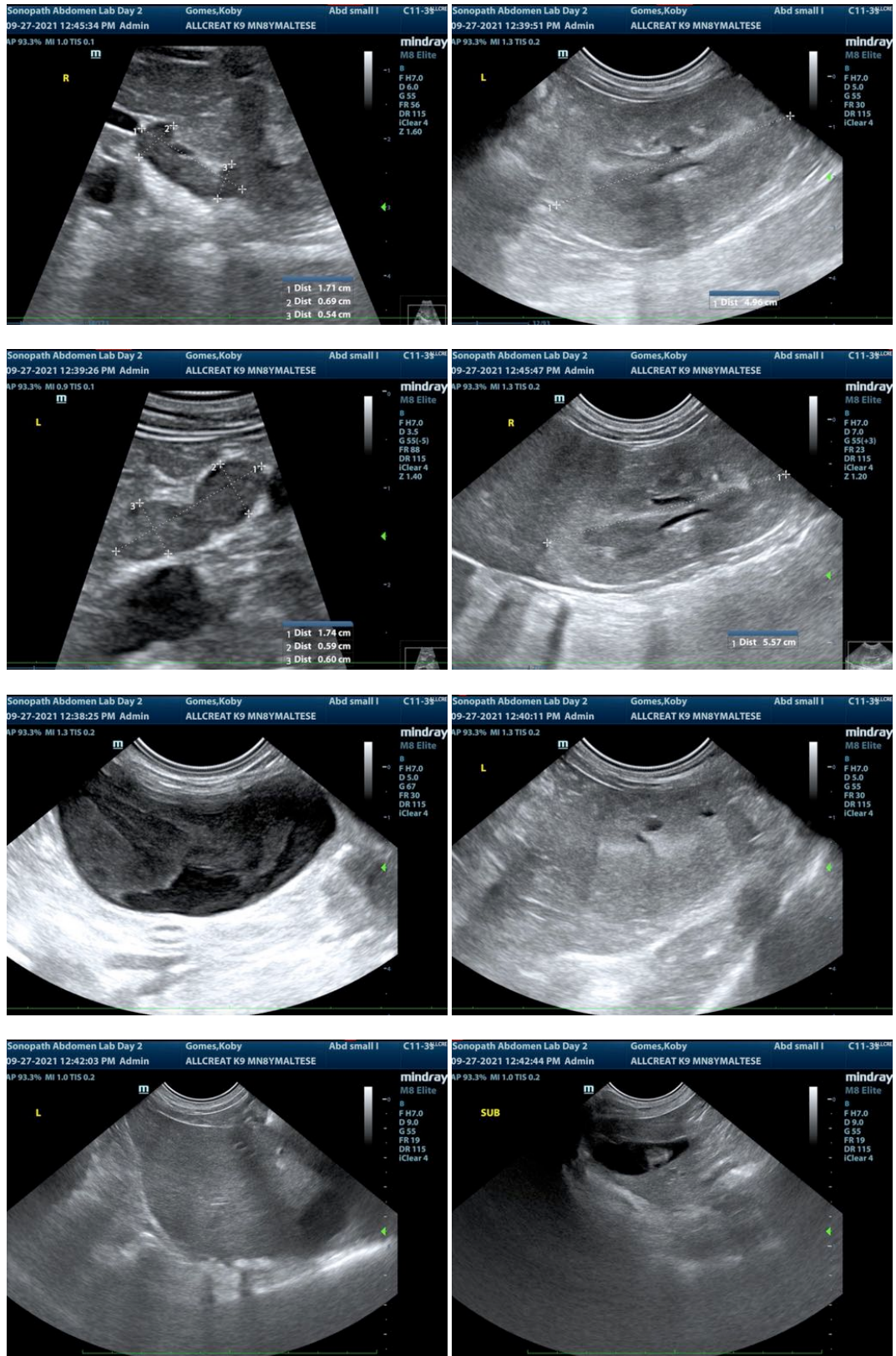
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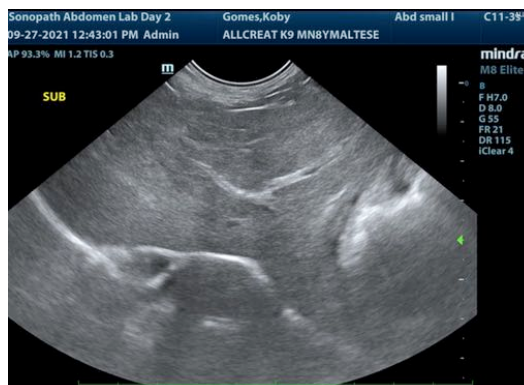
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Neutered male

**AGE**

8 years

**WEIGHT**



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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