



**PATIENT PRESENTING CLINICAL SIGNS**

Mello Keil Not eating, increased liver enzymes.

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Canine **Urinary System**

**BREED** The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. The bladder had 1.4 cm of sand accumulation that was non-obstructive. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

**SEX**

Spayed Female

**AGE**

12 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 and no evidence of pelvic dilation was present. The left kidney measured 6.4 cm. The right kidney measured 6.94 cm.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**Adrenal Glands**

The **adrenal glands** were at the upper limits of normal. The left adrenal gland measured 1.97 x 0.82 cm. The right adrenal gland measured 2.05 x 1.31 cm at the cranial pole and 0.6 cm at the caudal pole.

**IMAGING PERFORMED BY**

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DABVP, Cert. IVUSS

**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.

**HOSPITAL NAME**

Andover AH

**REFERRING VET**

Dr. Hummel

**Liver**

The **liver** revealed increased portal markings. Lobar biliary mineralization was noted. The gallbladder in this patient was rounded with multi-focal, echogenic foci that is consistent with biliary calculi. The gallbladder was over distended with hard bile. This is consistent with mucocele formation with enhanced surrounding mesentery. This is suggestive for inflammation. The patient presented a positive Murphy's sign upon imaging. Muco duct was noted with over distension at 0.7 cm. The maximum width of the gallbladder measured 0.6 cm.

**INVOICE**

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**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.



**PATIENT**

**Pancreas**

Mello Keil

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.

**SPECIES**

Canine

**BREED**

Mix

**ULTRASONOGRAPHIC FINDINGS**

Gallbladder mucocele with cholangiohepatitis liver pattern.

Mucoduct pattern with biliary calculi.

**SEX**

Spayed Female

Mineralized spleen.

Otherwise, geriatric abdomen.

**AGE**

12 years

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Concurrent Cushing's/PDH may be an issue in this patient. This is a surgical gallbladder mucocele. Cholecystectomy and common bile duct lavage with liver biopsy +/- urinary bladder lavage is recommended.

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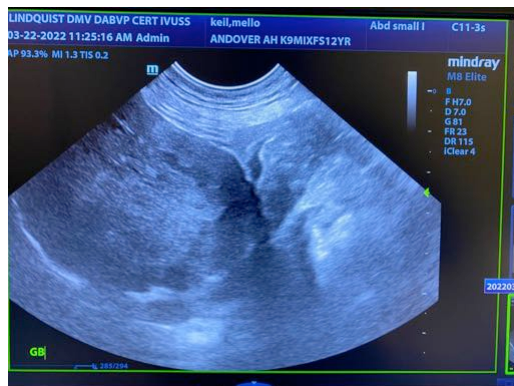
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**PATIENT**

Mello Keil

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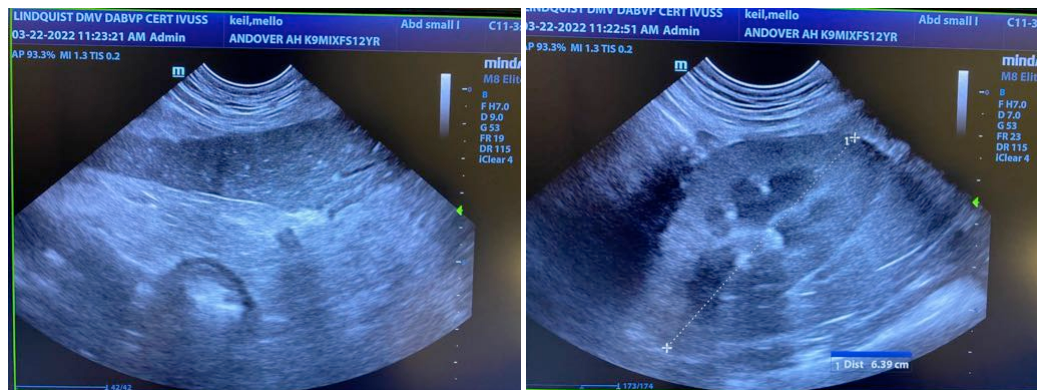
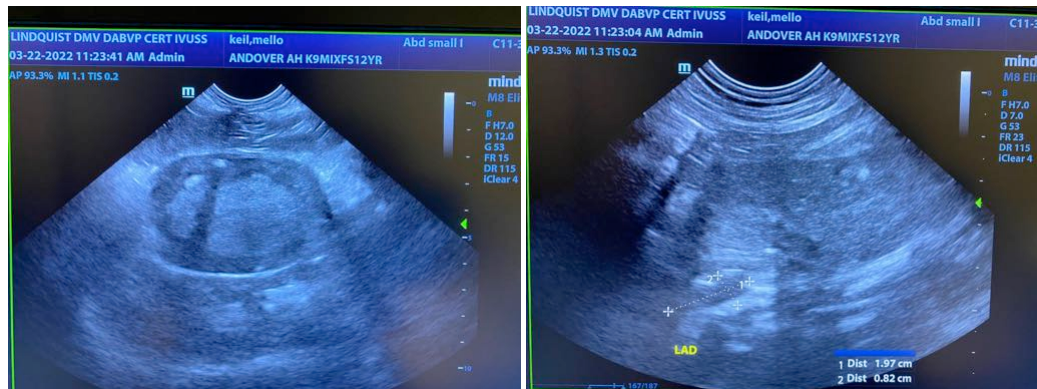
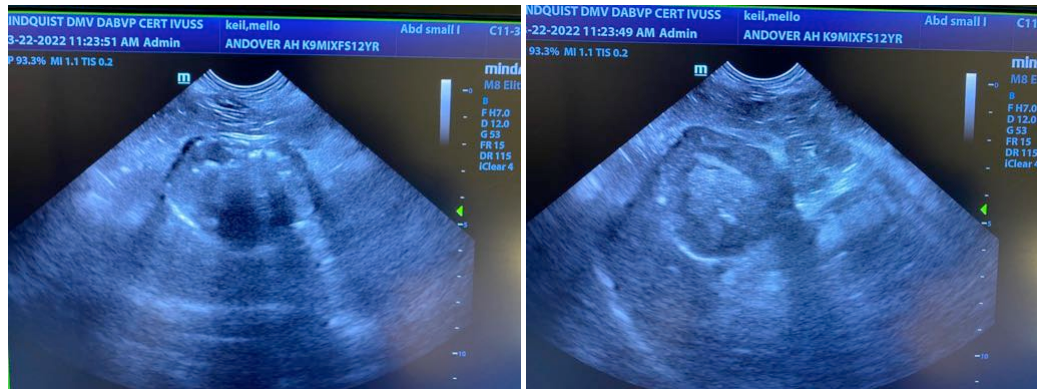
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**PATIENT**

Mello Keil

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.

**SPECIES**

Canine

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.

**BREED**

Mix

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

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Spayed Female

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