



PATIENT PRESENTING CLINICAL SIGNS

Joey Lavery History: Acute renal disease vs other. Current meds: Baytril, Ampicillin, Amlodipine, Benazapril, entyce
Abnormal PE/Chem/CBC/UA Results:ALP 3129, BUN 63.1, creat 3.4

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Canine **Urinary System**

BREED The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

SEX Normal renal size with asymmetrical margination was present in both kidneys. The renal cortex presented uniformly increased in echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Moderate loss of corticomedullary border demarcation with subjective mild reduced medullary volume noted in both kidneys. Variably sized cortical cysts present in both kidneys along with pinpoint hyperechoic cortical foci, suggestive of pinpoint areas of microinfarction, fibrosis or mineralization. Mild pyelectasia was present as well as scant retroperitoneal free fluid in both kidneys. The renal medullary volume was subjectively reduced. The left kidney measured 5.4 cm in length. The right kidney measured 4.8 cm in length.

AGE 13 Years

WEIGHT Adrenal Glands

14 Pounds The bilateral adrenal glands were normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 2.2 cm length x 0.60 cm width in the caudal pole. The right adrenal gland measured 2.18 cm length x 0.68 cm caudal pole width.

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

Spleen

The spleen was overall normal in size with mild asymmetrical contour and generalized mild parenchyma heterogeneity with solitary mild expansive mid-splenic hypoechoic nodule measuring 1.0 cm in diameter.

IMAGING PERFORMED BY

Jessica Miller

Liver

The liver was mildly enlarged. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion.

HOSPITAL NAME

Newton VH

REFERRING VET

Dr. Verhalen

The gallbladder exhibited generalized distention, containing moderate non-dependent mildly organized luminal debris, extending into concurrent dilated cystic biliary duct. The cystic biliary duct dilation measured 2.0 cm in diameter. No overt evidence of concurrent common bile duct dilation.

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Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

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The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.



PATIENT Normal visible colon wall layers were present with apparent formed feces in lumen.

Joey Lavery **Pancreas**

SPECIES The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

Canine **Free Abdomen**

No evidence of overt lymphadenopathy or peritoneal free fluid was present.

BREED **ULTRASONOGRAPHIC FINDINGS**

Maltese

SEX

Neutered Male

AGE

13 Years

- Bilateral moderate to advanced chronic renal changes with mild pyelectasia and scant retroperitoneal free fluid
- Hepatopathy with mild parenchymal remodeling- subjectively benign
- Distended gallbladder and cystic biliary duct containing moderate non-dependent mildly congealed luminal debris
- Non-specific mildly expansive splenic nodule

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

WEIGHT

14 Pounds

The appearance of the kidneys is most consistent with chronic nephropathy as opposed to acute kidney injury or insult. Although potential for acute on chronic nephropathy, if relatively recent to sudden increase in renal enzymes, cannot be definitively excluded. The pyelectasia is likely owing to the chronic renal changes, pelvic scarring, possibly owing to previous calculi passage with minor potential for bilateral chronic pyelonephritis. Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.

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The vacuolar hepatic changes and cholestasis, given the ALP elevation and presentation of the gallbladder and cystic biliary duct with potential for inflammatory hepatobiliary process such as cholangiohepatitis, are possible. Leptospirosis/PCR may be considered if clinically indicated. Hepatosupportive medications and ursodiol may prove beneficial. Immediate recheck sonogram suggested if increasing cholestasis or evidence of cranial abdominal or subxiphoid discomfort or pain on palpation.

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Focal splenic hyperplasia, hematopoiesis, splenitis or emerging neoplasia are possible considerations for the splenic nodule. Assuming normal clotting status, ultrasound guided FNA of the nodule, using a 25-gauge needle, may be considered for screening cytology. Otherwise, sonographic monitoring of the nodule with initial recheck in 4-weeks would be more conservative approach.

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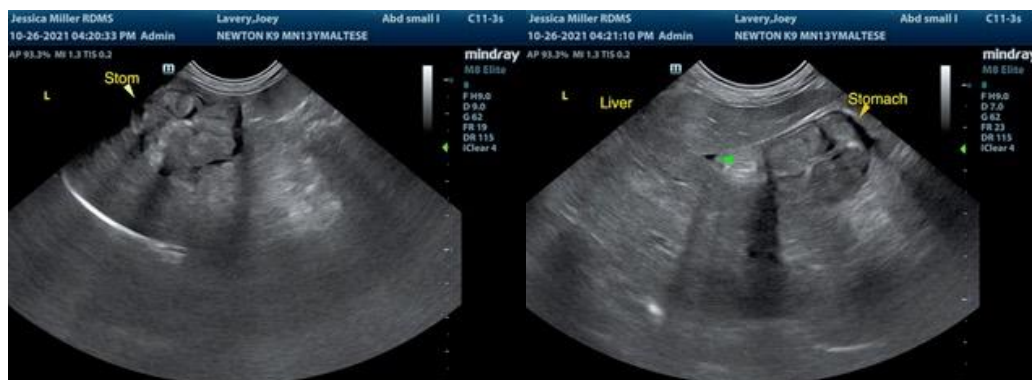
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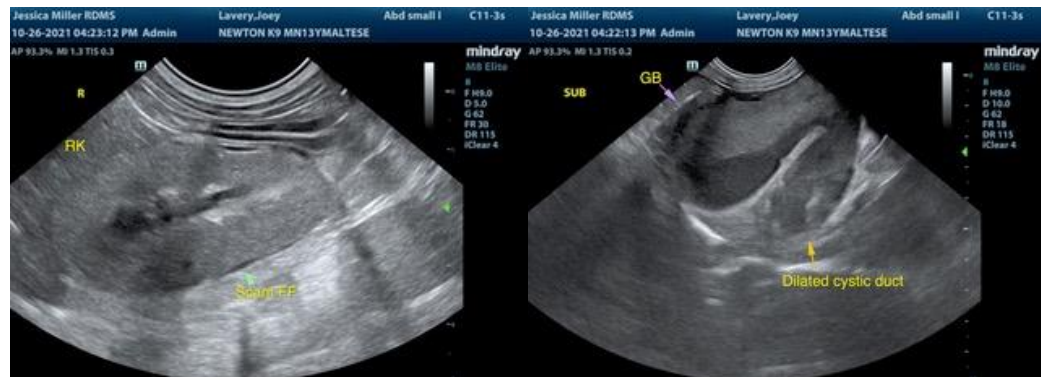
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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