



## PATIENT

Rocko Grate

## SPECIES

Canine

## BREED

Yorkshire Terrier

## SEX

MN

## AGE

10 years 2 months

## WEIGHT

9.8 lbs

## INTERPRETED BY

Greg Kuhlman, DVM,  
DACVIM (SAIM)

## IMAGING PERFORMED BY

Dr. Lara Cabugawan

## HOSPITAL NAME

Union Vet Animal  
Hospital

## REFERRING VET

Dr. Lara Cabugawan

## INVOICE

11886

## DATE

5/6/2026

## PRESENTING CLINICAL SIGNS

Presented for acute onset of diarrhea/ hematochezia. Appetite still good, history of cough. Hx tracheal collapse.

Abnormal PE/Chem/CBC/UA Results: PE: LS OU, periodontal ds , distended abdomen , medial patellar luxation , sq masses (lipoma )

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The bladder is moderately distended with anechoic urine. No uroliths are seen. The bladder wall is normal in appearance and thickness. No masses are seen.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia or infarcts observed. Multiple hypoechoic cysts noted throughout the cortex bilaterally. Mild non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted bilaterally. The left kidney measured 3.4 cm in length. The right kidney measured 4.0 cm in length.

### Adrenal Glands

The left adrenal gland presents normal shape and homogenous parenchyma. The phrenic vasculature is unremarkable. The cranial pole measures 3.5 mm and the caudal pole measures 5.0 mm.

The right adrenal gland is not clearly visualized in these images.

### Spleen

The spleen is normal in size, shape, margination and echogenicity. No masses are seen. Normal blood flow.

### Liver

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

### Gastrointestinal

The stomach and intestines have normal wall layering and thickness. Descending colon contains a moderate amount of formed stool, and a large amount of gas.

### Pancreas



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The visible pancreas is diffusely mildly hypoechoic with significant surrounding steatitis.

### *Free Abdomen*

There are no enlarged abdominal lymph nodes seen on this exam. No free abdominal fluid is seen.

### ULTRASONOGRAPHIC FINDINGS

- Age related kidney changes noted with mild non-obstructive dystrophic mineralization, and multiple hypoechoic cortical cysts noted bilaterally.
- Diffusely, mildly hypoechoic pancreas with significant surrounding steatitis.
- Hyperechoic hepatomegaly – This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible but considered less likely.
- Moderate gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Based on the appearance of the pancreas, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

The appearance of the liver is suggestive of a benign vacuolar hepatopathy. Recommend screening for hyperadrenocorticism, hypothyroidism, and hypertriglyceridemia. Given that the patient's gallbladder contains a moderate amount of debris, I recommend also screening for cholangitis. If cholangitis is identified, then I recommend starting Ursodiol therapy at 15 mg/kg by mouth BID for 2 months and then recheck via ultrasound.

If not already performed, then I recommend comprehensive lab work to evaluate further for a hepatopathy.

Given the age-related changes in both kidneys, urinalysis and, if indicated based on urinalysis results, urine culture is recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended. If chronic kidney disease is suspected then I recommend full staging, monitoring, and managing this patient per International Renal Interest Society (IRIS) guidelines.



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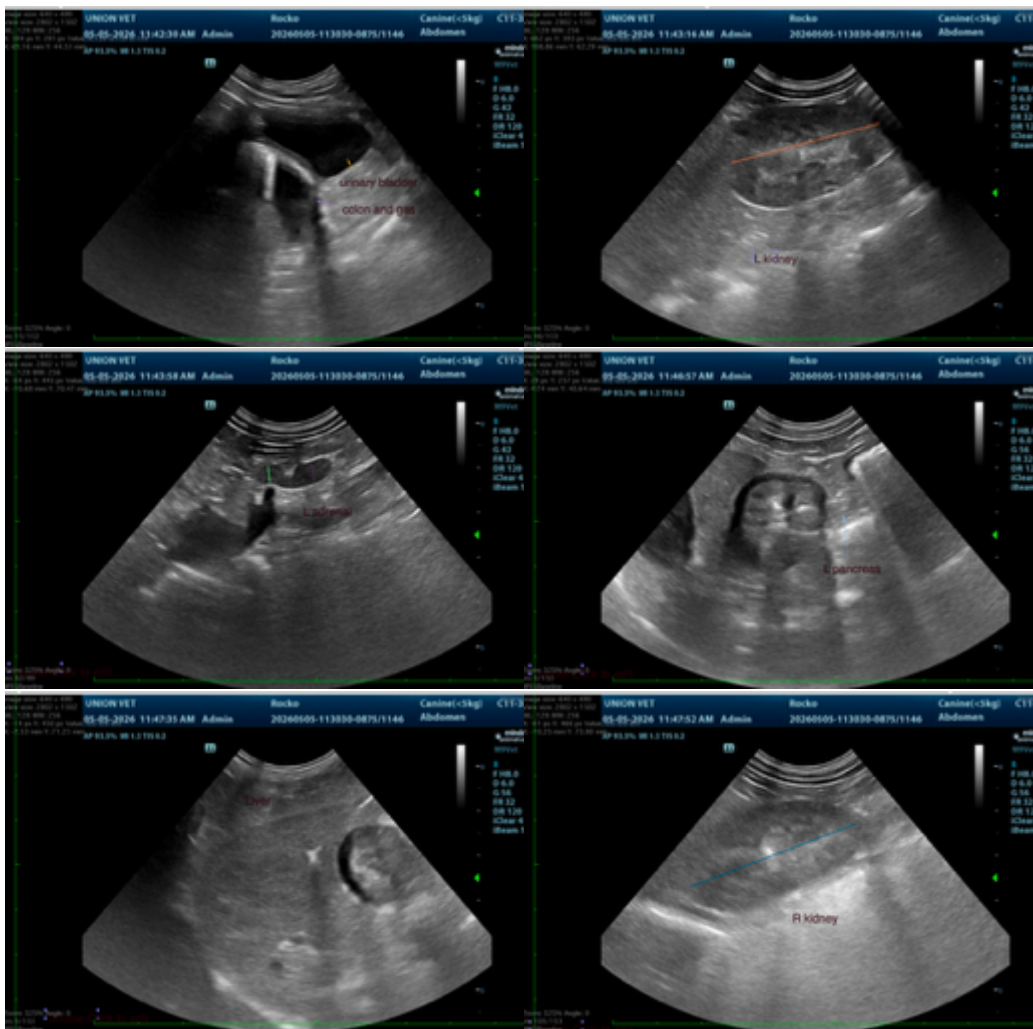
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Greg Kuhlman, DVM, DACVIM (SAIM)

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