



**PATIENT PRESENTING CLINICAL SIGNS**

Kodiak Roberts  
P presented on 11/29/21 for URI. P has a history of reoccurring URIs/upper respiratory tract infections. Abnormal PE/Chem/CBC/UA Results: Routine labwork performed at that time. P found to have elevated Hct (63.4%), elevated ALT (274), and elevated AST (411). ALK WNL (17). P also had 3+ proteinuria, remainder of labwork unremarkable.

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED *Urinary System***

Yorkshire Terrier

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 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**

Male

The prostate exhibited minor prominent size with subtle non-homogeneous parenchyma and solitary small parenchymal cyst. The prostate measured 1.5 cm diameter.

**AGE**

12 Years 11 Months

The area of the aortic trifurcation was free of pathology.

**WEIGHT**

3.87 Pounds

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild to moderate loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Pinpoint areas of medullary mineral were present. The left kidney measured 3.2 cm. The right kidney measured 3.6 cm.

***Adrenal Glands***

**INTERPRETED BY**

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

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 1.3 cm length x 0.45 cm at the caudal pole. The right adrenal gland measured 1.3 cm length x 0.48 cm at the caudal pole.

**IMAGING PERFORMED BY**

Dr. Preston

***Spleen***

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

**HOSPITAL NAME**

All Creatures AH

***Liver***

**REFERRING VET**

Dr. Preston

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. Intermittent discrete, hypoechoic intraparenchymal nodules were present. Mild variably echogenic gallbladder debris was present. The gallbladder was non-distended. No evidence of gallbladder or peripheral gallbladder inflammation. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

**INVOICE**

33668

***Gastrointestinal***

**DATE**

12/22/21

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. Gastric body wall measured 0.35 cm.



**PATIENT**

Kodiak Roberts

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. Duodenum wall measured 0.27 cm. Jejunum wall measured 0.20 cm.

**SPECIES**

Canine

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

**Pancreas**

The parenchyma of the pancreas was mildly hyperechoic to adjacent omental fat with diffuse parenchyma remodeling. The capsule of the pancreas was mildly asymmetrical in contour without evidence of peripancreatic inflammation. These changes may suggest chronic inflammation, fibrosis, or saponification if previous history of pancreatitis. No overt signs of pancreatic neoplasia.

**BREED**

Yorkshire Terrier

**Free Abdomen**

**SEX**

No overt lymphadenopathy or peritoneal effusion was present.

Male

**ULTRASONOGRAPHIC FINDINGS**

**AGE**

12 Years 11 Months

- Hepatopathy exhibiting parenchymal remodeling and intermittent discreet intraparenchymal nodules
- Mild variably echogenic gallbladder debris – potential for emerging cholelithiasis
- Chronic renal changes with pinpoint medullary mineral
- Potential mild chronic pancreatitis or mild pancreatic fibrosis
- Small prostatic parenchymal cyst – incidental.

**WEIGHT**

3.87 Pounds

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Although non-specific, the appearance of the liver is suggestive of chronic, likely low-grade inflammatory hepatopathy or hepatobiliary process (i.e., low-grade hepatitis/choleangiohepatitis) given the AST elevation. Suspect discreet areas of hematopoiesis or nodular to regenerative hyperplasia likely. No overt evidence of hepatic neoplastic criteria.

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DVM, DABVP  
(Canine and Feline)

Hepatosupportive medications including Ursodiol (given the presence of gallbladder debris) is recommended. Ultrasound guided FNA of the liver (assuming normal clotting status) could be considered for screening cytology, primarily to assess for or identify inflammatory cell type. Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered. A spec cPL may be considered.

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**HOSPITAL NAME**

All Creatures AH

**REFERRING VET**

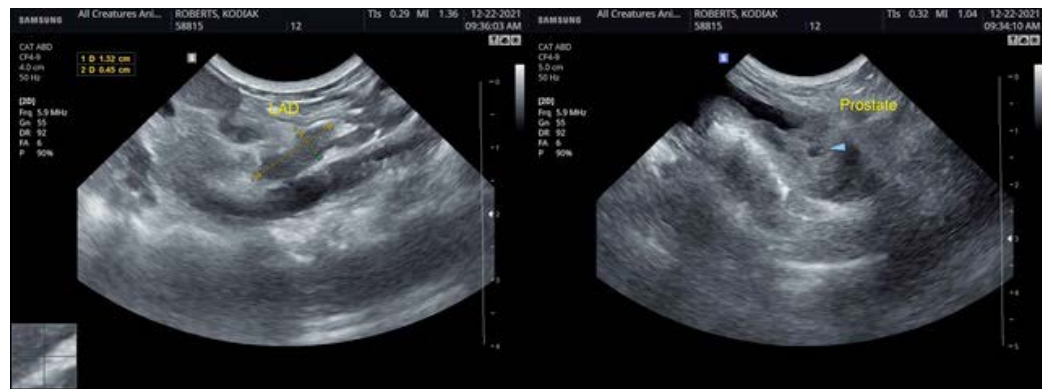
Dr. Preston

**INVOICE**

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**DATE**

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**PATIENT**

Kodiak Roberts

**SPECIES**

Canine

**BREED**

Yorkshire Terrier

**SEX**

Male

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**PATIENT**

Kodiak Roberts

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.

**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**

Yorkshire Terrier

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
info@SonoPath.com

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Male

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12 Years 11 Months

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