

**PATIENT PRESENTING CLINICAL SIGNS**

Harley Terranova

Jan, 2023: Hospitalized at ER for lethargy. AUS at that time: GB distension and sludge, hepatomegaly, functional gastric ileus, right adrenal nodule, possible acute on chronic pancreatitis. ALP 159, glob 4.4. On Ursodial 250 mg, 1/8 tab SID.

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**BREED**

Yorkshire Terrier

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

Neutered Male

The area of the residual prostate appeared normal and free of pathology.

**AGE**

11 Years

Normal size and margination was 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 loss of corticomedullary symmetry and definition expected for the age of the patient. minor areas of medullary mineral noted as well as small cortical cysts bilaterally. Scant pyelectasia present in both kidneys. The left kidney measured 3.9 cm.

**WEIGHT**

7 Pounds

**Adrenal Glands**

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 0.42 cm at the cranial pole and 0.45 cm at the caudal pole. A discreet, mildly non-homogeneous nodule was noted in the cranial pole of the right adrenal gland, non-disruptive, non-mineralized. The nodule measured 0.65 cm x 0.59 cm. The right adrenal gland measured 0.49 cm at the cranial pole and 0.43 cm at the caudal pole.

**INTERPRETED BY**

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

**Spleen**

**IMAGING PERFORMED BY**

Pamela Harrigan, RDCS

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. 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. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age related remodeling with minor potential for inflammatory or neoplastic disease.

**HOSPITAL NAME**

Pine Banks AH

**Liver**

**REFERRING VET**

Dr. Hasan Syed

The liver was subjectively normal in size with areas of minor capsule asymmetry. Generalized non-uniform increased parenchyma echogenicity exhibiting multifocal to diffuse small to discreet hypoechoic intraparenchymal nodules. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was distended in size. Normal appearance to the gallbladder wall with moderate to marked non-dependent, variably inspissated to hyperechoic gallbladder debris. No evidence of peripheral gallbladder inflammation. The common bile duct was normal.

**INVOICE**

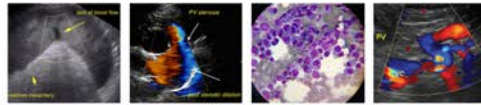
47214

**Gastrointestinal**

**DATE**

5/6/23

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.



**PATIENT**

Harley Terranova

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.

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

**SPECIES**

Canine

**Pancreas**

The pancreatic base and right limb were mildly prominent in size with asymmetrical contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

**BREED**

Yorkshire Terrier

**Free Abdomen**

No overt lymphadenopathy or peritoneal effusion was present.

**SEX**

Neutered Male

**ULTRASONOGRAPHIC FINDINGS**

**AGE**

11 Years

- Non-uniform/nodular liver, non-specific – vacuolar hepatopathy, inflammatory disease, hyperplasia, hematopoiesis, fibrosis, infiltrative neoplasia all potentials.
- Distended gallbladder with moderate to marked variably inspissated sludge
- Moderate chronic renal changes exhibiting cortical cysts, minor medullary mineral and minor pyelectasia
- Heterogeneous right adrenal gland with discreet nodule – suspect adenomatous change.
- Prominent to remodeling pancreas
- Sonographically unremarkable gastrointestinal tract

**WEIGHT**

7 Pounds

**INTERPRETED BY**

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

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**IMAGING PERFORMED BY**

Pamela Harrigan, RDCS

Continued Ursodiol with hepatic nutraceuticals recommended with continued monitoring for evidence of progressive cholestasis or cranial abdomen/subxiphoid discomfort on palpation. Spec cPL could be considered if persistent signs of chronic pancreatitis. Screening blood pressure recommended to assess for evidence of hypertension, which may allude to more aggressive right adrenal pathology (i.e., pheochromocytoma). Hepatic sampling would be required for further definition.

**HOSPITAL NAME**

Pine Banks AH

Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.

**REFERRING VET**

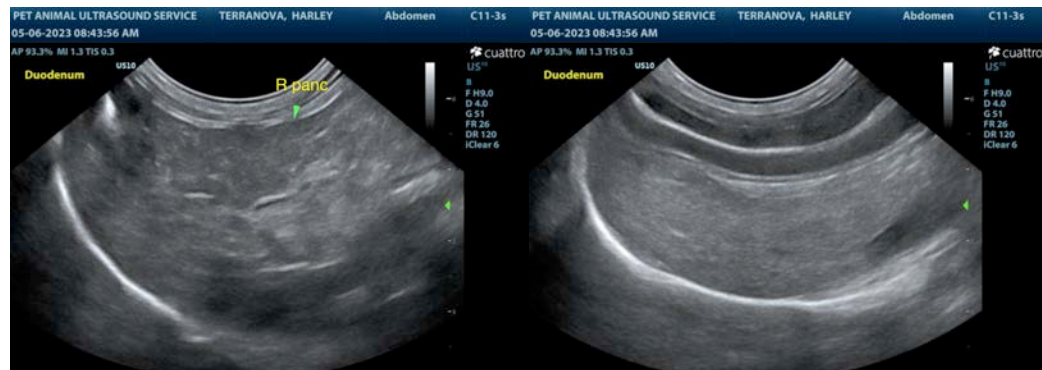
Dr. Hasan Syed

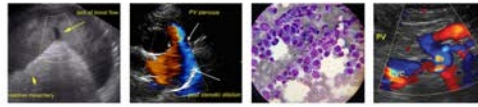
**INVOICE**

47214

**DATE**

5/6/23





**PATIENT**

Harley Terranova

**SPECIES**

Canine

**BREED**

Yorkshire Terrier

**SEX**

Neutered Male

**AGE**

11 Years

**WEIGHT**

7 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Pamela Harrigan, RDCS

**HOSPITAL NAME**

Pine Banks AH

**REFERRING VET**

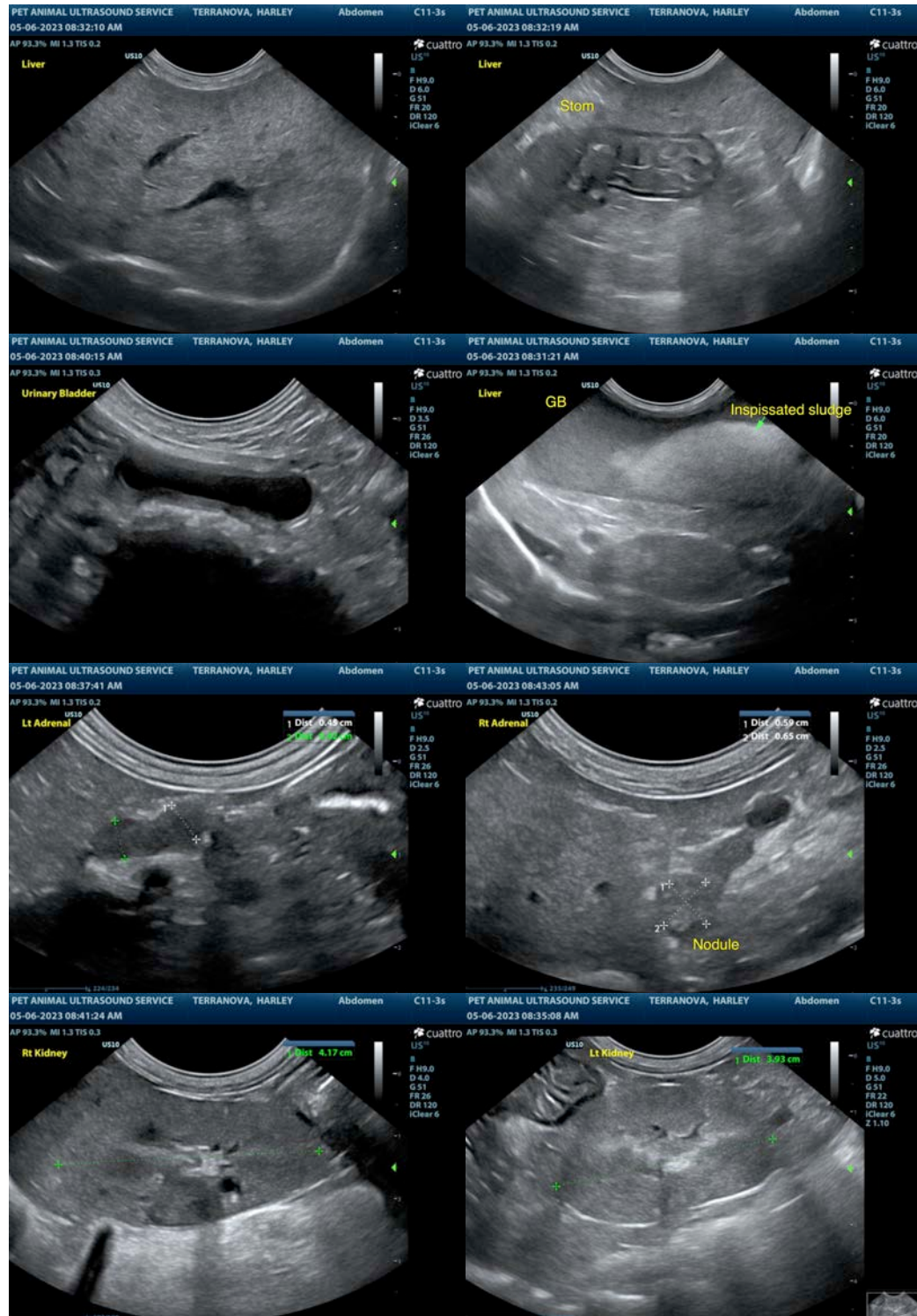
Dr. Hasan Syed

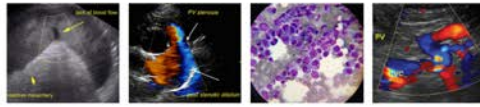
**INVOICE**

47214

**DATE**

5/6/23





**PATIENT**

Harley Terranova

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

**SEX**

Neutered Male

**AGE**

11 Years

**WEIGHT**

7 Pounds

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Pamela Harrigan, RDMS

**HOSPITAL NAME**

Pine Banks AH

**REFERRING VET**

Dr. Hasan Syed

**INVOICE**

47214

**DATE**

5/6/23