



**PATIENT PRESENTING CLINICAL SIGNS**

Rex Andia History: Acute renal failure, anuria. Received 1000ml LRS-no urine production seen. Current meds: IV Cerenia, Famotadine. Potential trauma incident in the area of the urinary bladder

**SPECIES** Abnormal PE/Chem/CBC/UA Results: BUN 47, Creat 2.9 after diuresis BUN 82, Creat 5.4, USG 1.039  
2 weeks ago.

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED** *Urinary System*

Rottweiler The urinary bladder was small in size with generalized thickened walls despite lack of urine distention. Mild asymmetrical luminal surface with mild non-homogenous mural echogenicity yet without overt evidence of mural mineralization. Ventral urinary bladder wall measured 0.95 cm width. Minimal anechoic urine was present which prohibited full evaluation of the urinary bladder walls. No evidence of calculi. The proximal urethra exhibited subjective mild thickening extending into the area of the prostate.

**SEX**

Neutered Male

The prostate exhibited mild enlargement for a neutered male with mild asymmetrical contour and non-homogenous to mildly hypoechoic parenchyma with intermittent hyperechoic prostatic parenchymal foci. The prostate measured 3.5 cm x 3.0 cm.

**AGE**

9 Years

Aortic trifurcation was normal.

**WEIGHT**

105.8 Pounds

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex without evidence of pyelectasia or overt pyelonephritis. The left kidney measured 6.6 cm in length. The right kidney measured 6.7 cm in length.

**INTERPRETED BY**

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

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.69 cm width at the caudal pole and 0.66 cm width at the cranial pole.

**IMAGING PERFORMED BY**

Shari Reffi, CVT

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.92 cm width at the caudal pole and 1.0 cm width at the cranial pole.

**Spleen**

**HOSPITAL NAME**

Shohola

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.

**REFERRING VET**

Dr. Demeo

**Liver**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. 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**

13205

**Gastrointestinal**

**DATE**

9/21/21

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.



**PATIENT**

Rex Andia

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**

*Pancreas*

Canine

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

**BREED**

Rottweiler

*Free Abdomen*

Moderate peritoneal free fluid exhibiting potential for mild cellular component was present. Concurrent reactive mesentery. Overt evidence of retroperitoneal effusion was not noted.

**SEX**

Neutered Male

**ULTRASONOGRAPHIC FINDINGS**

- Sonographically unremarkable bilateral kidneys, no overt pyelectasia or pyelonephritis
- Subnormal urinary bladder with generalized thickened walls
- Mild prostatomegaly with parenchymal hyperechoic foci- potential parenchymal mineralization

**AGE**

9 Years

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Although not definitive, primary consideration for urinary bladder rupture given the history of trauma is considered a top differential diagnosis. Potentially this may be owing to compromised urinary bladder walls owing to chronic cystitis. However, concern for prostatic neoplasia such as prostatic adenocarcinoma or transitional cell carcinoma potentially involving the urinary bladder is warranted. Given the overall normal sonographic appearance of the bilateral kidneys without evidence of concurrent retroperitoneal inflammation or effusion, acute renal insult and primary anuric renal failure secondary to leptospirosis/infectious renal toxic insult (i.e., grapes, raisins or other) considered less likely yet cannot be definitively excluded. Comparison between effusion and serum creatinine levels is recommended as well as effusion analysis, cytology +/- culture and sensitivity if clinically indicated. Positive contrast cystogram recommended, if possible, otherwise, under ultrasonographic monitoring, injection of agitated saline within the urinary bladder following catheterization with monitoring for saline escape into the peritoneal cavity may be considered. However, given the sonographic abnormalities, a very guarded prognosis is indicated.

**WEIGHT**

105.8 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

Shohola

**REFERRING VET**

Dr. Demeo

**INVOICE**

13205

**DATE**

9/21/21



**PATIENT**

Rex Andia

**SPECIES**

Canine

**BREED**

Rottweiler

**SEX**

Neutered Male

**AGE**

9 Years

**WEIGHT**

105.8 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

Shohola

**REFERRING VET**

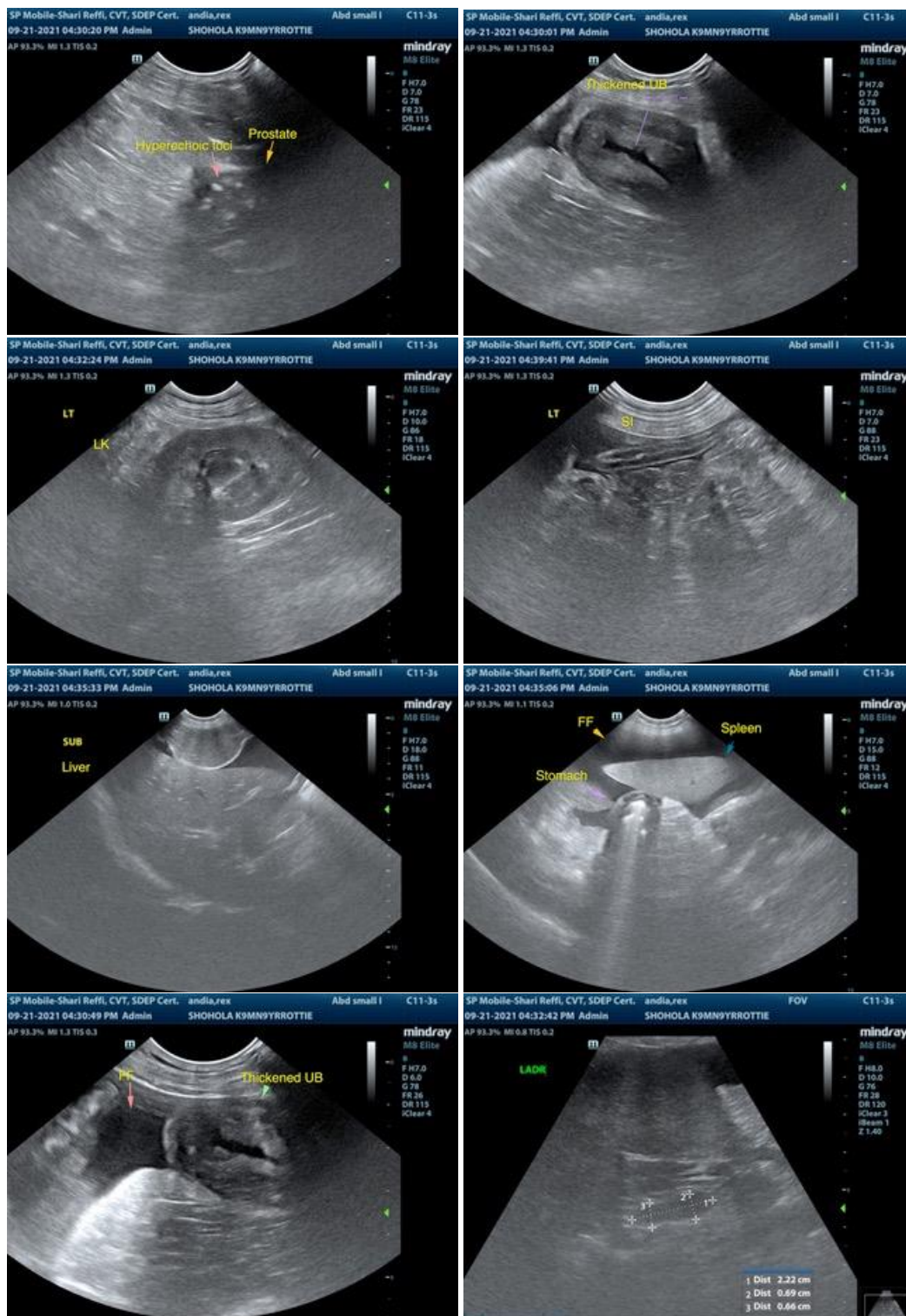
Dr. Demeo

**INVOICE**

13205

**DATE**

9/21/21





**PATIENT**

Rex Andia

**SPECIES**

Canine

**BREED**

Rottweiler

**SEX**

Neutered Male

**AGE**

9 Years

**WEIGHT**

105.8 Pounds

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

Shohola

**REFERRING VET**

Dr. Demeo

**INVOICE**

13205

**DATE**

9/21/21



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.

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