

**PATIENT**

Ruby Abbott

**SPECIES**

Canine

**BREED**

Cavalier Mix

**SEX**

SF

**AGE**

11 years

**WEIGHT**

18 lbs.

**INTERPRETED BY**R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)**IMAGING  
PERFORMED BY**

Sarah Pender, CVT

**HOSPITAL NAME**

SVS Imaging QC

**REFERRING VET**

Dr. Hartmann

**INVOICE**

16233

**DATE**

2/21/23

**PRESENTING CLINICAL SIGNS**

Hematuria, cystitis, unable to clear with a course of clavamox

Abnormal PE/Chem/CBC/UA Results: UA - WBC, RBC TNTC Occasional struvite crystals on manual sediment BW - unremarkable

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The urinary bladder was normal in size and tone with variably thickened ventral to apical urinary bladder wall exhibiting mild asymmetrical luminal surface contour and homogeneous mural echogenicity without evidence of mural mineralization. The ventroapical urinary bladder wall measured 0.79 cm. The dorsoapical and dorsal urinary bladder wall, as well as the caudal ventral wall extending into the trigone and cystourethral junction, were sonographically normal. Anechoic urine was present with mild, nondependent, hyperechoic sand to mineral, as well as focally adhered mineral along the irregular ventroapical luminal surface. No evidence of macro calculi was noted. No definitive urinary bladder tumors were visualized. The urethra exhibited normal structure and tone to a depth of 2.0 cm.

No evidence of medial Iliac or sublumbar lymphadenopathy was present.

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 loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation or pyelectasia was present. Nonobstructive areas of medullary mineral to small renoliths were present primarily in the lateral diverticuli. The left kidney measured 4.7 cm in length. The right kidney measured 5.2 cm in length.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 1.7 cm length x 0.55 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 1.9 cm length x 0.42cm width at the caudal pole.

**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.

**Liver/ Gallbladder**

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.



**PATIENT**

**Gastrointestinal**

Ruby Abbott

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.

**SPECIES**

Canine

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.

**BREED**

Cavalier Mix

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

**SEX**

SF

**Pancreas**

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 were evident.

**AGE**

11 years

**Free Abdomen**

No overt lymphadenopathy or peritoneal effusion was present.

**WEIGHT**

18 lbs.

**ULTRASONOGRAPHIC FINDINGS**

- Variable to irregular ventroapical cystitis pattern with mild nondependent to focally adhered luminal mineral
- Mild nonobstructive renal medullary mineral / small renoliths
- Normal volume liver

**INTERPRETED BY**

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

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

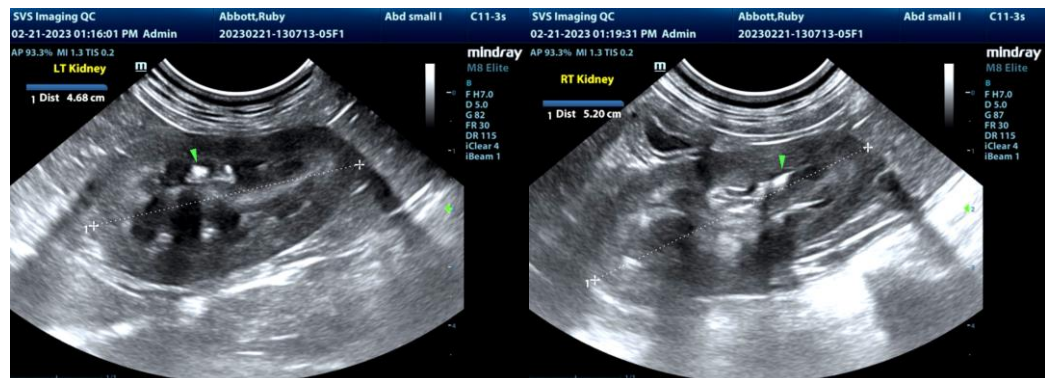
Recheck urine C/S on a sterile urine sample, if off antibiotics for 7 days, is recommended. Ideally based on C/S results if documented recurrent or persistent UTI, a higher dose / shorter frequency antibiotic regimen i.e., Enrofloxacin or Clavamox 20 mg/kg PO SID for 4-5 days along with urinary probiotics may be considered. Screening BRAF Assay is suggested to assess for nonobvious neoplastic criteria, although the pattern of urinary bladder wall thickening is most suggestive of cystitis. Concurrent urinary diet may prove beneficial. Ventroapical urinary bladder biopsies for histopathology +/- tissue C/S to assess for embedded infection may ultimately be indicated.

**IMAGING PERFORMED BY**

Sarah Pender, CVT

**HOSPITAL NAME**

SVS Imaging QC



**REFERRING VET**

Dr. Hartmann

**INVOICE**

16233

**DATE**

2/21/23



**PATIENT**

Ruby Abbott

**SPECIES**

Canine

**BREED**

Cavalier Mix

**SEX**

SF

**AGE**

11 years

**WEIGHT**

18 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Sarah Pender, CVT

**HOSPITAL NAME**

SVS Imaging QC

**REFERRING VET**

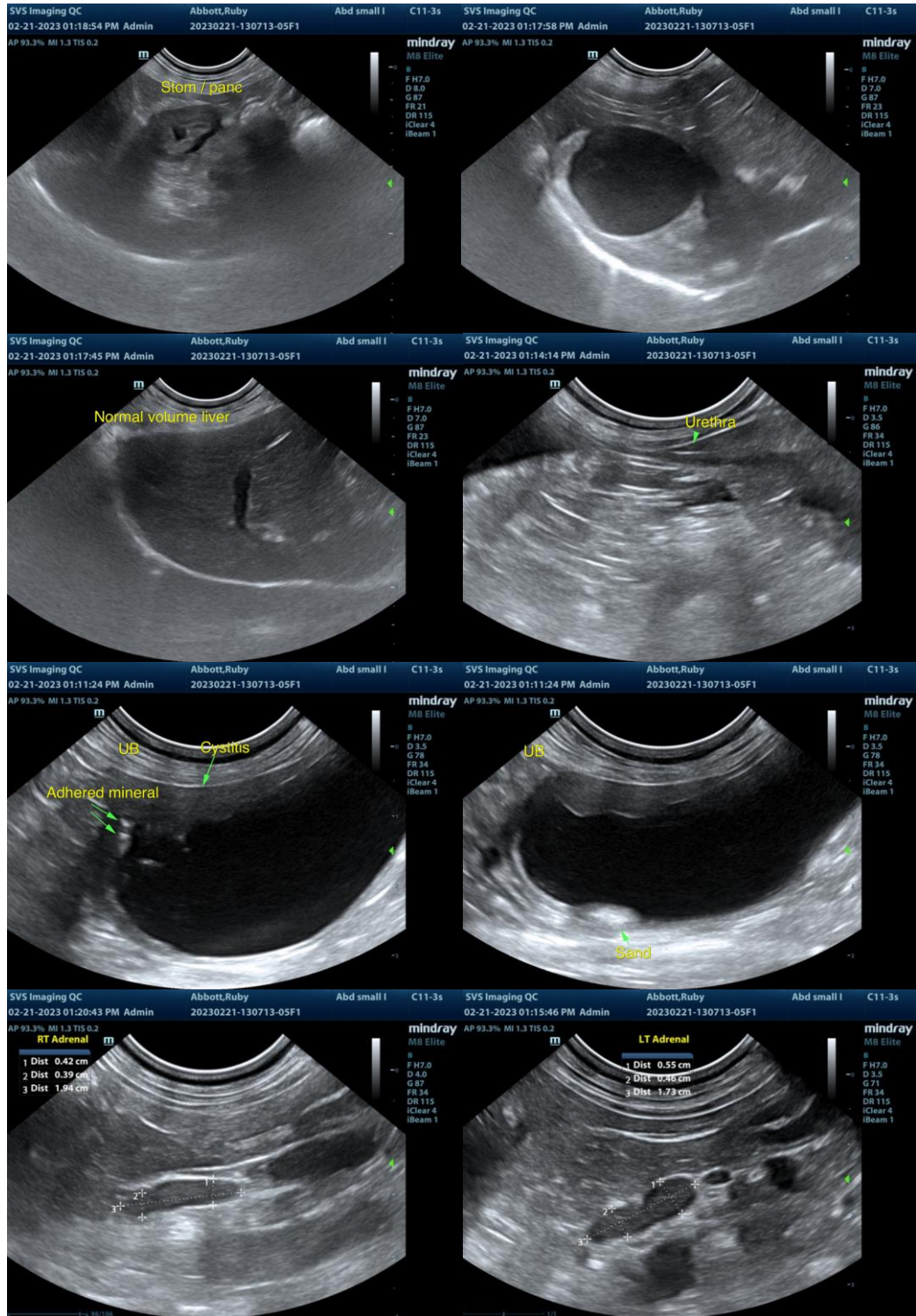
Dr. Hartmann

**INVOICE**

16233

**DATE**

2/21/23





**PATIENT**

Ruby Abbott

**SPECIES**

Canine

**BREED**

Cavalier Mix

**SEX**

SF

**AGE**

11 years

**WEIGHT**

18 lbs.

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Sarah Pender, CVT

**HOSPITAL NAME**

SVS Imaging QC

**REFERRING VET**

Dr. Hartmann

**INVOICE**

16233

**DATE**

2/21/23

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.

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