



**PATIENT PRESENTING CLINICAL SIGNS**

Jackson Robertson

History: Cytotomy Feb 10th - removed single large stone (stone analysis pending but suspect cysteine) O unable to give oral medication. Hyporexia P coming in daily for injectable Rimadyl. Minimal Improvement Current Medications Injectable rimadyl Q24hrs, Convenia SQ 2/12/22, Cerenia SQ 2/15/22, Entyce PO 2/15/22

**SPECIES**

Canine

**BREED**

Shepherd

Abnormal PE/Chem/CBC/UA Results: Bloodwork the day of surgery was unremarkable Today's abnormalities as follows: BUN >130 mg/dL CREA - too high to read GLOB - 4.6 g/dL GLU 245 mg/dL PHOS 10.7 mg/dL TP 8.4 g/dL Na 125 mmol/L K 6.8 mmol/L Cl 95 mmol/L

**SEX**

Neutered male

**AGE**

3 years

**WEIGHT**

52.8 pounds

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 cm exhibited normal tone and overall size with no evidence of overt distension. Although not definitive, potential for wall defect is noted in the apical urinary bladder measuring approximately 0.5 cm. No evidence of retained calculi or mineral was noted. 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.

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 with no evidence of pyelectasia, hydronephrosis or overt left or right hydroureter. A previously noted static corticomedullary cyst was present. The left kidney measured 6.8 cm in length. The right kidney measured 6.6 cm in length.

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

The area of the aortic trifurcation was free of pathology.

**Adrenal Glands**

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.51 at the cranial pole and 0.57 cm at the caudal pole. The right adrenal gland measured 0.70 cm 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**

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.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenna Walsh CVT

**HOSPITAL NAME**

Banfeild of South Eugene

**REFERRING VET**

Dr. Garretson

**INVOICE**

10044ag

**DATE**

02/16/2022



## PATIENT *Gastrointestinal*

Jackson Robertson The stomach presented intact sonographically unremarkable wall layering with a normal wall layer ratio and mild retained nonshadowing ingesta/chyme.

## 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

Shepherd

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

## SEX

Neutered male

## *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 was evident.

## *Free Abdomen*

## AGE

3 years

Moderate volume primarily anechoic peritoneal free fluid was present with areas of reactive mesentery around the bladder and within the mid to caudal abdomen.

## WEIGHT

52.8 pounds

No overt lymphadenopathy was noted.

## ULTRASONOGRAPHIC FINDINGS

- Previously noted static left kidney corticomedullary cyst-no evidence of left or right pyelectasia, hydronephrosis or left/right hydroureter.
- Normal urinary bladder tone-potential for apical wall defect although not definitive.
- Moderate volume peritoneal free fluid with associated reactive mesentery.

## INTERPRETED BY

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

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the history of recent cystotomy in combination with significant azotemia as well as hyperkalemia, uroabdomen is suspected. Further assessment may include fluid analysis and cytology +/- CS if clinically indicated. Comparison of serum and abdominal fluid creatinine levels recommended. Likewise, comparison of the ratio of abdominal fluid potassium to serum potassium is recommended with predicted value of uroabdomen if  $>1.4-1$ . An abdominal fluid creatinine to serum creatinine ratio  $>2.1$  is predictive of uroabdomen. Given this probability in light of recent surgery, exploratory laparotomy with gross inspection of the urinary bladder, bilateral ureters and if needed the bilateral kidneys may be considered, although overt evidence of renal pathology was not noted.

## IMAGING PERFORMED BY

Jenna Walsh CVT

## HOSPITAL NAME

Banfield of South  
Eugene

## REFERRING VET

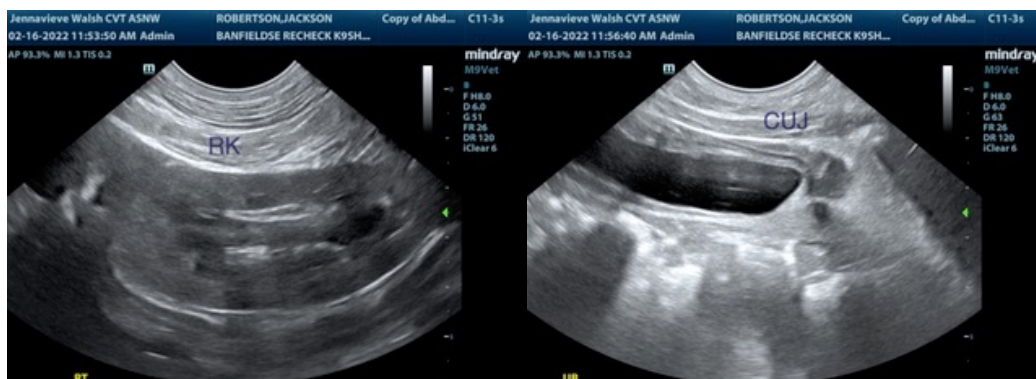
Dr. Garretson

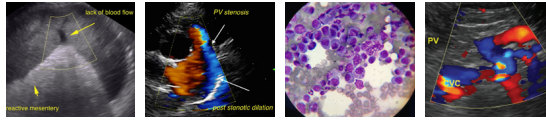
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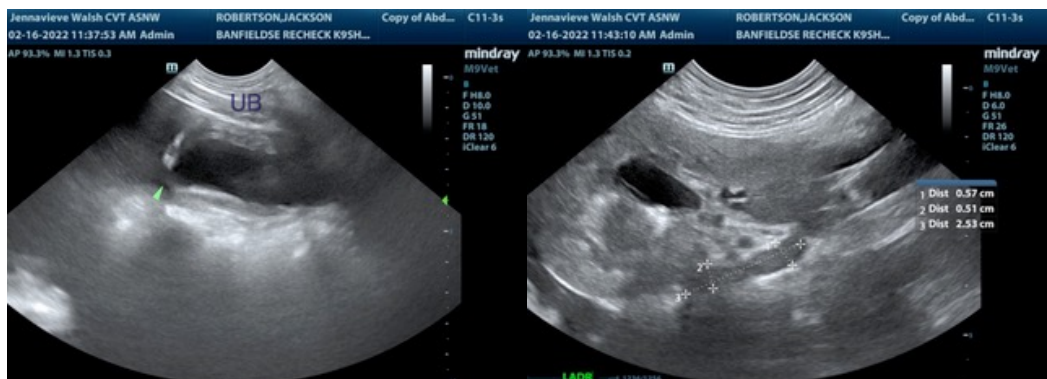
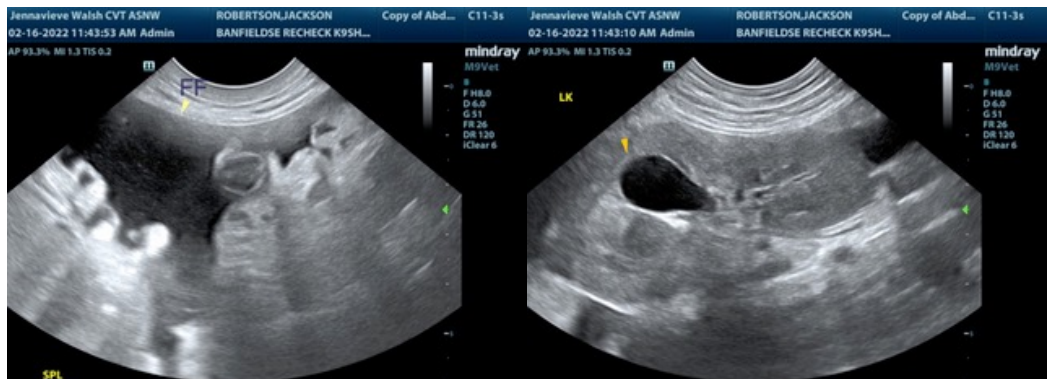
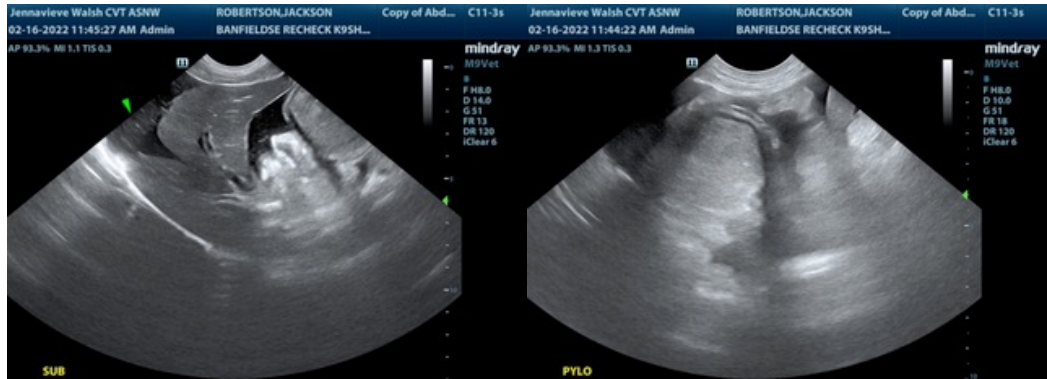
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**PATIENT**

Jackson Robertson

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.

**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**

Shepherd

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**

**SEX**

Neutered male

info@SonoPath.com

**AGE**

3 years

**WEIGHT**

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