



**PATIENT PRESENTING CLINICAL SIGNS**

Utley Cowling PU/PD, elevated liver enzymes, hypertension, proteinuria. Medication: Ursodiol, Denamarin, Telmisartan

**SPECIES** Abnormal PE/Chem/CBC/UA Results:

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**BREED**

Terrier Mix

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal tone. Mild nonuniform thickening of the urinary bladder wall was present. A small non-obstructive dependent calculus was present measuring 1.0 cm in diameter. No evidence of neoplastic or inflammatory criteria.

**SEX**

MN

**AGE**

2011

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 was present. The left kidney measured 5.9 cm in length. The right kidney measured 5.6 cm in length.

The area of the aortic trifurcation was free of pathology.

**WEIGHT**

36.8

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

**Adrenal Glands**

**INTERPRETED BY**

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

The bilateral adrenal glands were mildly enlarged in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 2.8 cm length and 1.1 cm width in the caudal pole. The right adrenal gland measured 4.0 cm length and 1.2 cm width in the caudal pole.

**Spleen**

**IMAGING PERFORMED BY**  
 Rebekah Jakum, CVT  
 ARDMS/RVT

The spleen exhibited overall normal size with areas of mild capsule asymmetry with subtle generalized parenchyma heterogeneity. A solitary mildly expansive cystic appearing macronodule to small mass was present in the mid to caudal spleen measuring 2.3 cm in diameter. The mass appeared to mildly distort the lateral capsule without evidence of capsular escape. Concurrent hyperechoic non-disruptive nodules present in the mid to cranial spleen were present, an example measuring 1.0 cm in diameter.

**HOSPITAL NAME**

Lehigh Valley AH Bath

**Liver/Gallbladder**

**REFERRING VET**

Tan

The liver presented enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was mildly distended in size with primarily anechoic luminal content and moderate inspissated non-organized hyperechoic debris and suspect luminal mucus. The cystic and common bile ducts were normal.

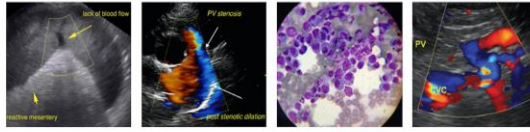
**INVOICE**

13187ag

**Gastrointestinal**

**DATE**  
 03/16/2023

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**

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.

Utley Cowling

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**

**Free Abdomen**

Terrier Mix

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

**SEX**

**ULTRASONOGRAPHIC FINDINGS**

MN

- Mildly expansive cystic appearing splenic macronodule/small mass with concurrent subjective benign hyperechoic nodules-hyperechoic nodules consistent with benign myelolipomas or mineralization. The cystic appearing nodule may indicate cyst, hyperplasia, hematopoiesis while potential for emerging neoplastic criteria possible.
- Hepatopathy-subjectively benign.
- Moderate gallbladder debris, possible early non-inflamed mucocele.
- Non-specific mild chronic renal changes.
- Bilateral mildly enlarged to irregular adrenal glands.
- Small cystic calculus.

**AGE**

2011

**WEIGHT**

36.8

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**INTERPRETED BY**

A full adrenal workup is recommended given hepatoadrenal presentation, possible early gallbladder mucocele and clinical signs. Monitoring of UPC is suggested if Cushing's syndrome is confirmed.

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

Continued hepatosupportive medications such as Denamarin and Ursodiol recommended. Sonographic reassessment of the gallbladder is advised if persistent/progressive cholestasis or evidence of cranial abdominal/subxiphoid discomfort on palpation.

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
ARDMS/RVT

Sonographic monitoring of the cystic splenic macronodule/mass for evidence of progressive would be reasonable. Eventual splenectomy may be indicated.

**HOSPITAL NAME**

Lehigh Valley AH Bath



**REFERRING VET**

Tan

**INVOICE**

13187ag

**DATE**

03/16/2023



**PATIENT**

Utley Cowling

**SPECIES**

Canine

**BREED**

Terrier Mix

**SEX**

MN

**AGE**

2011

**WEIGHT**

36.8

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
ARDMS/RVT

**HOSPITAL NAME**

Lehigh Valley AH Bath

**REFERRING VET**

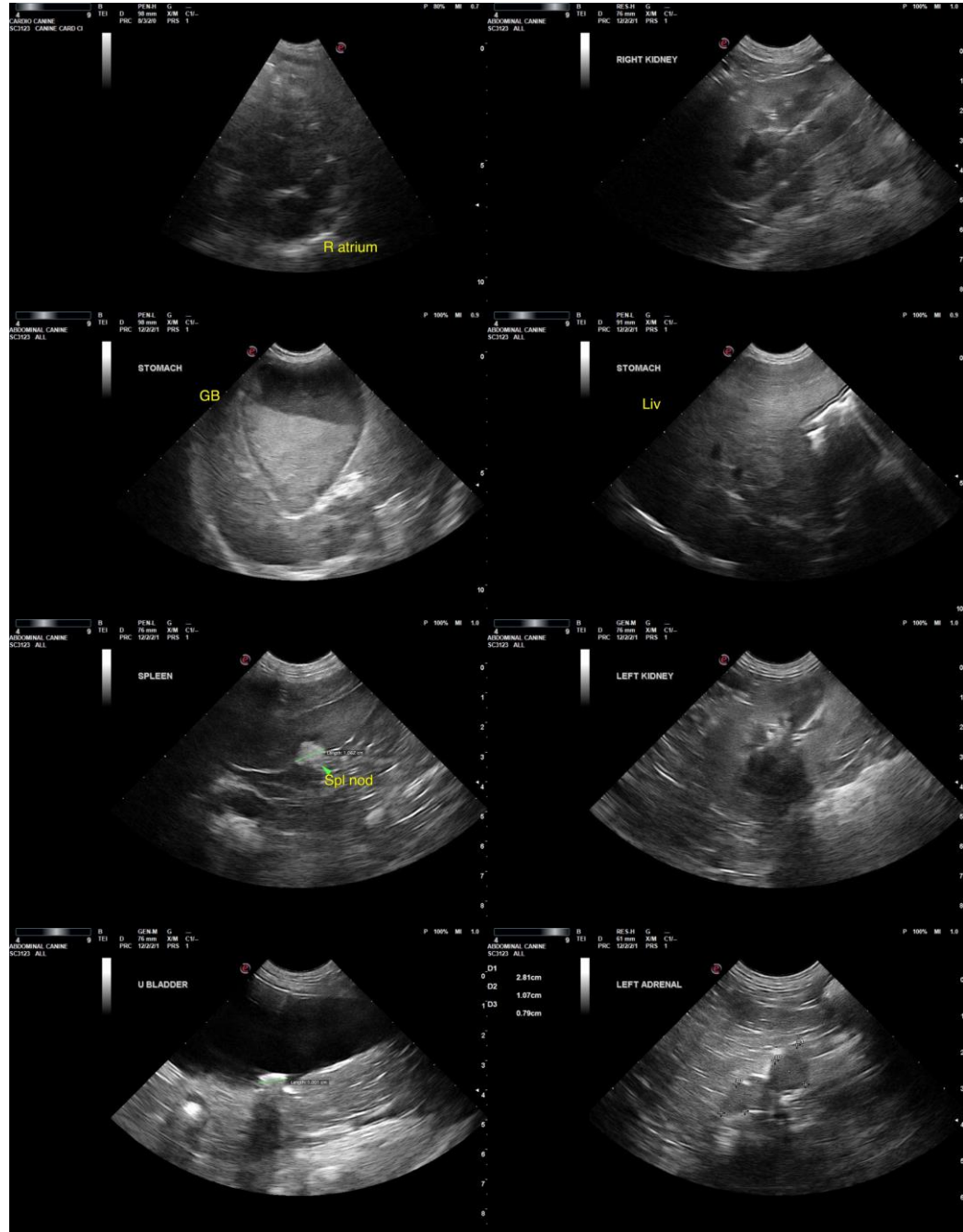
Tan

**INVOICE**

13187ag

**DATE**

03/16/2023



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.

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)  
[mac.daniel@sonopath.com](mailto:mac.daniel@sonopath.com)



**PATIENT**

Utley Cowling

**SPECIES**

Canine

**BREED**

Terrier Mix

**SEX**

MN

**AGE**

2011

**WEIGHT**

36.8

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Rebekah Jakum, CVT  
ARDMS/RVT

**HOSPITAL NAME**

Lehigh Valley AH Bath

**REFERRING VET**

Tan

**INVOICE**

13187ag

**DATE**

03/16/2023