



**PATIENT PRESENTING CLINICAL SIGNS**

Sugar Botzum PU/PD, inappropriate elimination, weight loss

**SPECIES** CBC- Platelets 505, Chemistry Panel - BUN 43, Creatinine 1.3, SDMA 20, Normal liver enzymes  
 Urinalysis- Specific gravity- 1.030, tract protein

Canine

**BREED ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Terrier Mix

**Urinary System**

**SEX** The urinary bladder, trigone, and cystourethral junction 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 was noted. The urethra exhibited overtly normal structure and tone to a depth of 2.0 cm.

FS

The area of the aortic trifurcation was free of pathology.

**AGE**

2007

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 moderate loss of corticomedullary border demarcation expected for the age of the patient. Pinpoint areas of dystrophic medullary mineral and multiple cortical cysts were present in both kidneys. No evidence of pelvic dilation was present. The left kidney measured 3.7 cm in length. The right kidney measured 4.4 cm in length.

**WEIGHT**

13.1

**INTERPRETED BY**

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

**Adrenal Glands**

A subtly expansive to hyperechoic nodule was present in the cranial pole of the left adrenal gland. Associated mild cranial left adrenomegaly with asymmetrical capsule contour was present. The nodule did not exhibit signs of parenchymal mineralization or vascular invasion. The nodule measured 1.0 cm x 0.82 cm. The overall left adrenal gland measured 1.9 cm length x 0.92 cm width at the cranial pole and 0.41 cm width at the caudal pole.

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
 ARDMS/RVT

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 1.7 cm length x 0.47 cm width at the caudal pole.

**HOSPITAL NAME**

Lehigh Valley AH  
 (Allen)

**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.

**REFERRING VET**

Dr. Hersh

**INVOICE**

13703

**Liver/ Gallbladder**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion.

**DATE**

4/21/22



**PATIENT**

Sugar Botzum

The gallbladder was non-distended in size containing primarily anechoic content with mild to moderate, nondependent yet nonorganized sludge. The gallbladder walls were sonographically unremarkable. No evidence of peripheral gallbladder inflammation was noted. The cystic and common bile ducts were normal.

**SPECIES**

Canine

***Gastrointestinal***

The stomach exhibited intact yet regionally prominent wall layering primarily in the antrum and pylorus. Mild retained nonshadowing ingesta was present in the stomach. The pylorus wall width measured 0.43 cm.

**BREED**

Terrier Mix

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.

**SEX**

FS

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

***Pancreas***

**AGE**

2007

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

***Free Abdomen***

**WEIGHT**

13.1

No overt lymphadenopathy or peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

- Irregular left adrenal gland with subtle cranial nodule
- Moderate chronic renal changes with cortical cysts and pinpoint dystrophic medullary mineral
- Mild to moderate gallbladder debris (non-mucocele)
- Minor pancreatic remodeling - incidental or age-related change
- Mildly prominent yet intact antrum / pyloric walls with mild gastric ingesta

**INTERPRETED BY**

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

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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

The presentation of the left adrenal gland is nonspecific with potential for functional vs. nonfunctional adenoma or hyperplasia with concern for emerging neoplasia such as pheochromocytoma, adenocarcinoma, or other. Further assessment may include full adrenal work up if clinical suspicion for hyperadrenocorticism, assessment of systemic blood pressure for evidence of hypertension, which may allude to a pheochromocytoma, as well as sonographic monitoring for evidence of progression.

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
 ARDMS/RVT

**HOSPITAL NAME**

Lehigh Valley AH  
 (Allen)

**REFERRING VET**

Dr. Hersh

**INVOICE**

13703

Sonographically, potential for mild gastritis is possible yet not definitive. Correlation with clinical signs, i.e., evidence of vomiting or inappetence is suggested. A GI panel to include PLI/TLI/Cobalamin/Folate as well as three view chest radiographs and neurological / musculoskeletal examination are recommended to assess for or rule out occult disease which may cause weight loss.

**DATE**

4/21/22



**PATIENT**

Sugar Botzum

**SPECIES**

Canine

**BREED**

Terrier Mix

**SEX**

FS

**AGE**

2007

**WEIGHT**

13.1

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
ARDMS/RVT

**HOSPITAL NAME**

Lehigh Valley AH  
(Allen)

**REFERRING VET**

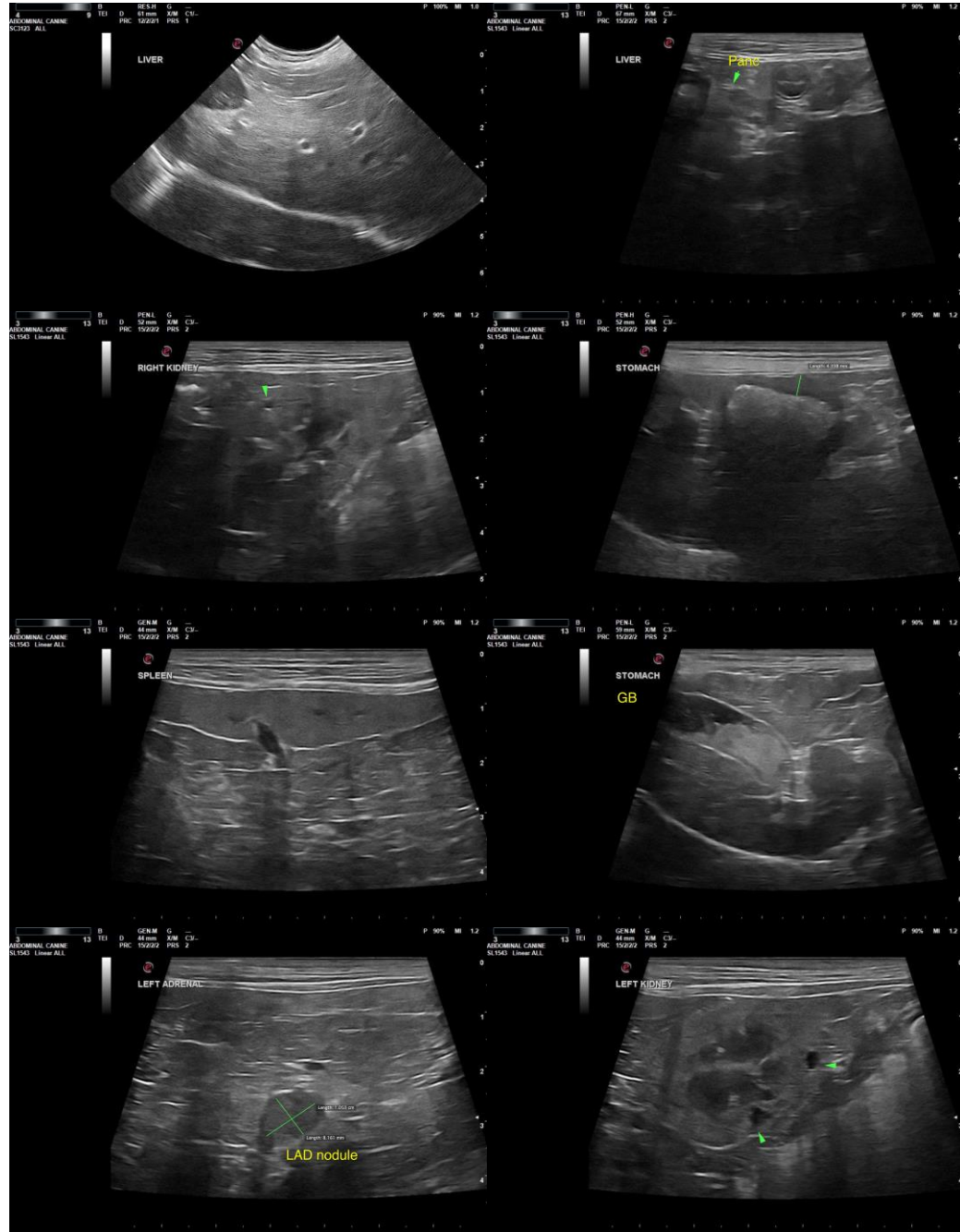
Dr. Hersh

**INVOICE**

13703

**DATE**

4/21/22





**PATIENT**

Sugar Botzum

**SPECIES**

Canine

**BREED**

Terrier Mix

**SEX**

FS

**AGE**

2007

**WEIGHT**

13.1

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
ARDMS/RVT

**HOSPITAL NAME**

Lehigh Valley AH  
(Allen)

**REFERRING VET**

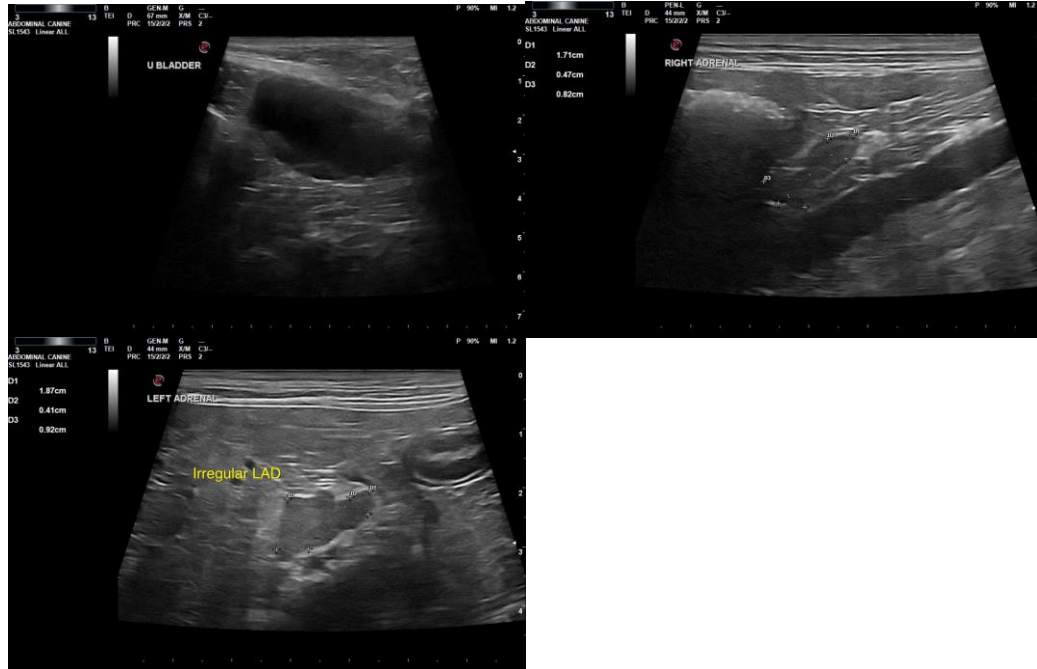
Dr. Hersh

**INVOICE**

13703

**DATE**

4/21/22



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)