



**PATIENT**

Snickers Leitzel

**SPECIES**

Canine

**BREED**

Shih Tzu Mix

**SEX**

MN

**AGE**

13yr

**WEIGHT**

28lb

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Jennifer Todd

**HOSPITAL NAME**

Lambs Gap Animal  
Hospital

**REFERRING VET**

Dr. Lindsey Knouse

**INVOICE**

14627ag

**DATE**

08/15/2023

**PRESENTING CLINICAL SIGNS**

Snickers has persistently high liver values (ALT 317, ALP 787 on 7/29/23), recent mild Reticulocytosis and went to the ER 7/28 due to very picky appetite. Was put on cerenia (no record from ER) On C/D chronically. History of CaOx uroliths, cystotomy March, 2022. On benazepril for proteinuria.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal thickness and tone. Anechoic urine was present in the lumen with mild dependent hyperechoic lumen sand/mineral. 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 was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild to moderate loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Static bilateral medullary nephrolithiasis was present. The left kidney measured 4.8 cm in length. The right kidney measured 4.7 cm in length.

The area of the aortic trifurcation was free of pathology.

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

**Adrenal Glands**

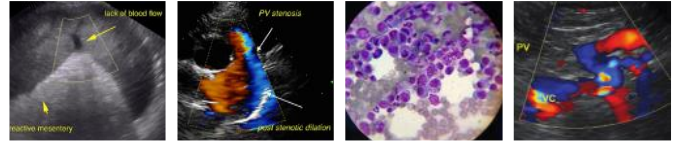
The right adrenal gland was mildly enlarged in size based on caudal pole measurement and body weight. A non-expansive mildly hyperechoic non-homogenous cranial right adrenal nodule was present measuring 1.2 cm x 1.0 cm. The left adrenal gland measured 2.1 cm length and 0.59 cm width in the caudal pole. The overall right adrenal gland measured 2.5 cm length and 0.72 cm width in the caudal pole.

**Spleen**

The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Multifocal, well-defined, symmetrical, hyperechoic nodules were present throughout the cranial to caudal parenchyma. An example of a nodule measured 0.79 cm. 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 or neoplastic changes were not noted. The hyperechoic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas.

**Liver/Gallbladder**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a moderate coarse echotexture. Mild parenchymal remodeling was present. Normal to adequate vascular volume. 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 with mild echogenic non-mineralized debris. The cystic and common bile ducts were normal.



**PATIENT**

**Gastrointestinal**

Snickers Leitzel

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**

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.

Canine

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

**BREED**

**Pancreas**

Shih Tzu Mix

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

**SEX**

**Free Abdomen**

MN

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

**AGE**

**ULTRASONOGRAPHIC FINDINGS**

13yr

- Persistent dependent urinary bladder lumen mineral.
- Static bilateral non-obstructive nephrolithiasis.
- Benign hepatopathy.
- Mild gallbladder sediment (non-mucocele).
- Pancreatic remodeling.
- Subtle right adrenal nodule-probable adenoma.
- Sonographically unremarkable GI tract.

**WEIGHT**

28lb

**INTERPRETED BY**

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

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

A full urinary workup including UA, C/S and recheck UPC level if evidence of proteinuria may be considered if not recently done. No sonographic evidence of progressive hepatopathy.

**IMAGING PERFORMED BY**

Dr. Jennifer Todd

Assessment for evidence of cranial abdominal/subxiphoid discomfort on palpation which may allude to low grade pancreatitis is recommended. Correlation with a spec cPL may be considered if clinical signs consistent with pancreatitis are present.

**HOSPITAL NAME**

Lambs Gap Animal  
Hospital

The possibility of emerging right adrenal nodule neoplastic criteria cannot be definitively excluded. A screening BP is advised to assess for evidence of hypertension which may allude to emerging right adrenal neoplastic criteria i.e., pheochromocytoma. Ideally sonographic reassessment of the right adrenal nodule for evidence of progression with initial recheck in 6 weeks is recommended.

**REFERRING VET**

Dr. Lindsey Knouse

**INVOICE**

14627ag

**DATE**

08/15/2023



**PATIENT**

Snickers Leitzel

**SPECIES**

Canine

**BREED**

Shih Tzu Mix

**SEX**

MN

**AGE**

13yr

**WEIGHT**

28lb

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Jennifer Todd

**HOSPITAL NAME**

Lambs Gap Animal  
Hospital

**REFERRING VET**

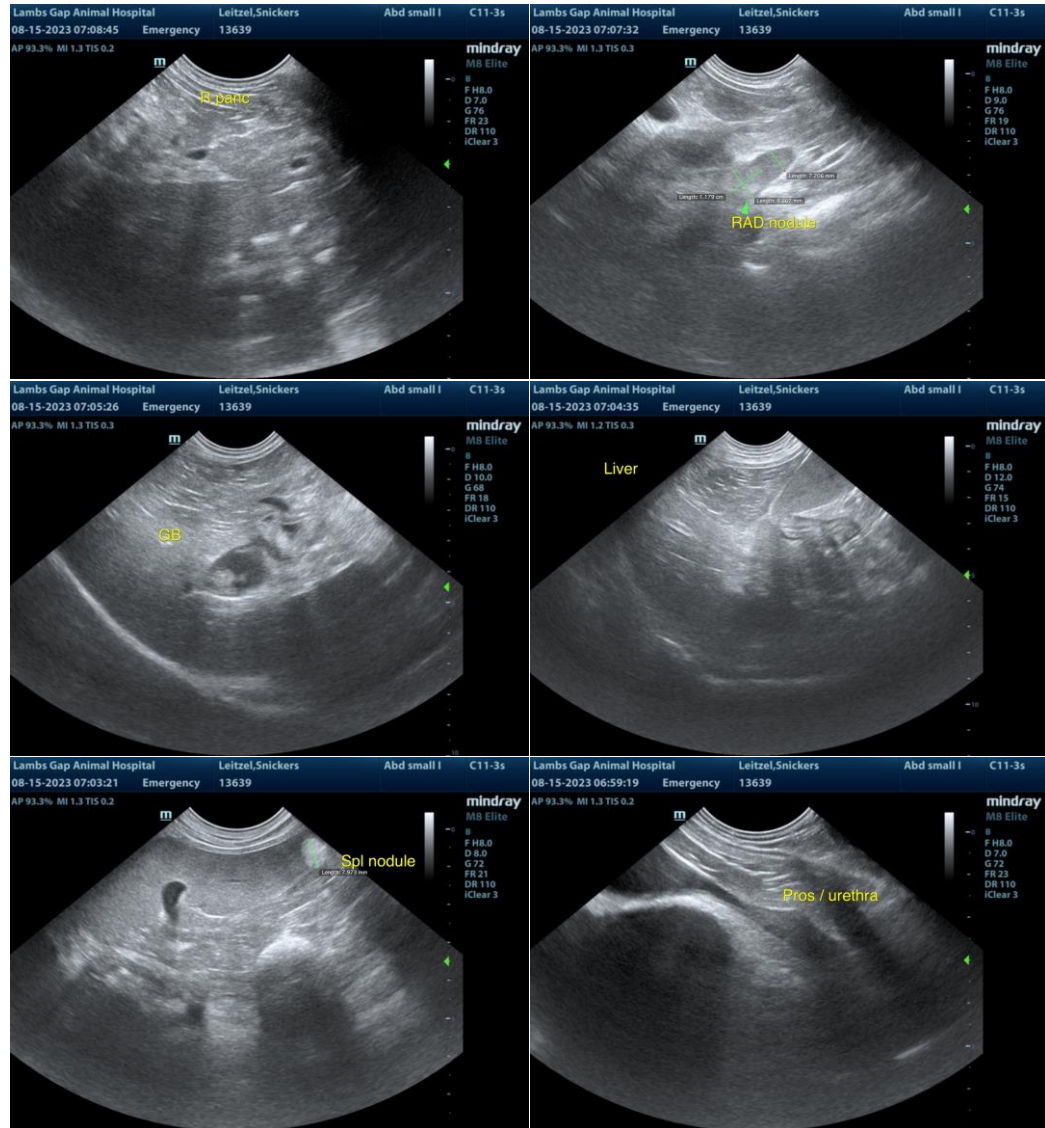
Dr. Lindsey Knouse

**INVOICE**

14627ag

**DATE**

08/15/2023





**PATIENT**

Snickers Leitzel

**SPECIES**

Canine

**BREED**

Shih Tzu Mix

**SEX**

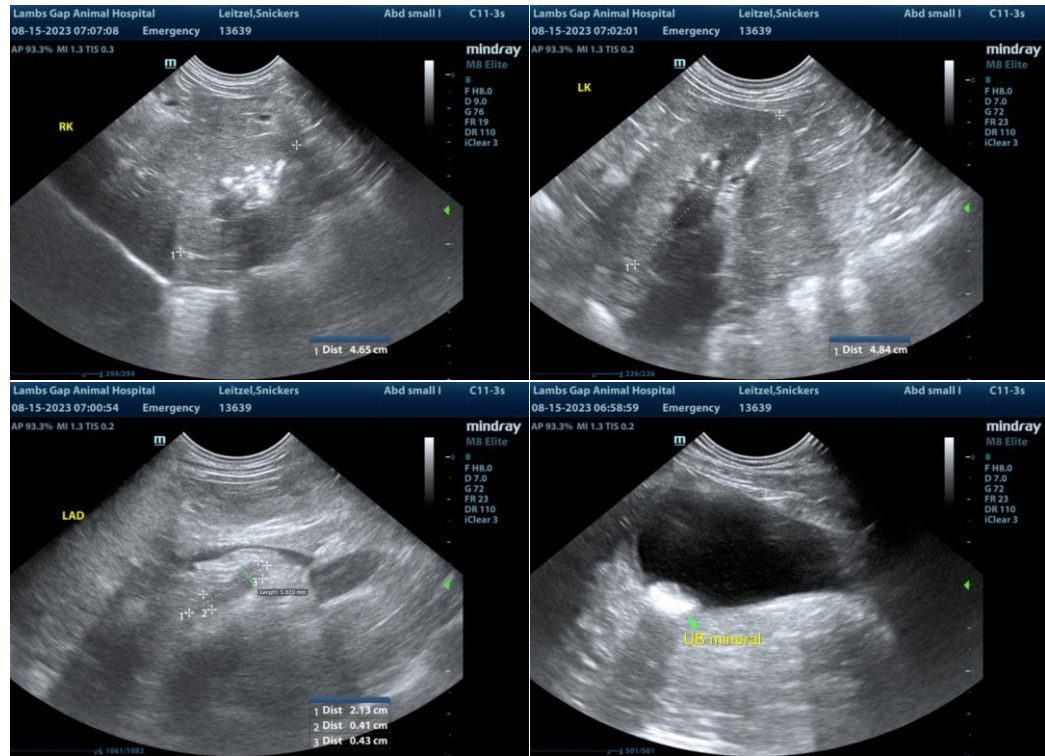
MN

**AGE**

13yr

**WEIGHT**

28lb



**INTERPRETED BY**

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

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.

**IMAGING PERFORMED BY**

Dr. Jennifer Todd

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)  
[info@sonopath.com](mailto:info@sonopath.com)

**HOSPITAL NAME**

Lambs Gap Animal  
Hospital

**REFERRING VET**

Dr. Lindsey Knouse

**INVOICE**

14627ag

**DATE**

08/15/2023