

PATIENT

Lilly Miller **PRESENTING CLINICAL SIGNS**

SPECIES

History: Adr Been lethargic E/D still but sleeps most of the day.
Abnormal PE/Chem/CBC/UA Results: Ca 12.2, ALT 144, GLOB 3.7, TP 7.6

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

BREED

Urinary System

Shih Tzu

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 cm exhibited normal thickness and tone. A solitary dependent small cystic calculus measuring 0.43 cm in diameter was observed in the urinary bladder. Anechoic urine was present in the lumen. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

SEX

Spayed female

Normal size and margination was present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some mildly increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. Pinpoint cortical mineralization fibrosis or microinfarcts were present in both kidneys. No evidence of pelvic dilation was present. The left kidney measured 3.9 cm in length. The right kidney measured – cm in length.

AGE

9 years

Adrenal Gland

WEIGHT

21 pounds

The left adrenal gland exhibited a nodule in the cranial aspect of the gland resulting in mild symmetrical distortion at the cranial left adrenal capsule yet without evidence of parenchymal escape and no evidence of mineralization. The left adrenal nodule measured 1.4 cm x 1.3 cm. The left adrenal gland measured 0.46 cm width at the caudal pole and 1.3 cm width at the cranial pole.

INTERPRETED BY

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

The right adrenal gland exhibited two variably sized uniformly echogenic nodules in the mid to cranial right adrenal gland measuring 1.0 cm x 1.0 cm and 0.8 cm x 0.76 cm. No evidence of parenchymal escape or vascular invasion was noted. The right adrenal gland measured 0.86 cm width at the caudal pole and 2.2 cm width at the cranial pole.

Spleen

IMAGING BY

Loetitia Saint-Jacques,
LVT

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.

HOSPITAL NAME

Pine Creek Veterinry

Liver

REFERRING VET

Dr. Denny Nolet

The liver presented mildly enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. Multifocal variably sized hypoechoic intraparenchymal nodules were observed. An example measured 2.5 cm in diameter. 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 non-distended in size with primarily anechoic luminal content. The cystic and common bile ducts were normal.

INVOICE

10112ag

DATE

03/02/2022



PATIENT

Lilly Miller

SPECIES

Canine

BREED

Shih Tzu

SEX

Spayed female

AGE

9 years

WEIGHT

21 pounds

INTERPRETED BY

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

IMAGING BY

Loetitia Saint-Jacques,
LVT

HOSPITAL NAME

Pine Creek Veterinary

REFERRING VET

Dr. Denny Nolet

INVOICE

10112ag

DATE

03/02/2022

Gastrointestinal

The stomach presented primarily intact wall layering with mild focal pyloric mucosal hypertrophy. The mucosal hypertrophy did not appear to obstruct pyloric outflow and is not consistent with neoplastic criteria. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with subtle signs of duodenal ileus along with intermittent nonspecific jejunal mucosal speckling. No signs of obstruction or foreign material were noted.

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

Pancreas

The left limb, right limb, and base of the pancreas presented hypoechoic to heterogeneous echogenicity compared to adjacent omental fat. Mild asymmetrical capsule margination was present with mild variable parenchymal swelling and mild peripancreatic reactivity / inflammation. No overt evidence of neoplasia.

Free Abdomen

Several benign to reactive medial iliac and pancreaticoduodenal lymph nodes were present. No evidence of effusion.

ULTRASONOGRAPHIC FINDINGS

- Bilateral nodular adrenal glands-functional vs nonfunctional adenoma, hyperplasia, lipogranuloma, neoplasia such as emerging pheochromocytoma, adenocarcinoma possible.
- Hepatopathy exhibiting multi focal nonspecific discrete hypoechoic intraparenchymal nodules-potential for low grade inflammatory hepatopathy given the ALT elevation with suspect areas of hematopoiesis, nodular to regenerative hyperplasia or lipogranulomas. Given the hypercalcemia potential for neoplastic criteria in the liver cannot be definitively excluded.
- Mild chronic renal changes with pinpoint hyperechoic cortical foci.
- Mild active to chronic active pancreatitis.

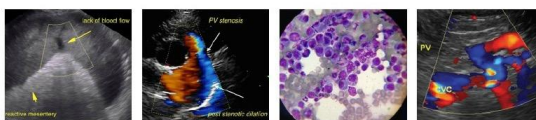
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Assuming normal clotting status hepatic parenchymal and nodule FNA using a 25g needle warranted for screening cytology.

Spec CPL for further assessment of the pancreas could be considered.

Screening BP, three view chest radiographs and if not done, rectal palpation to rule out anal sac pathology given the hypercalcemia is suggested.

Sonographic monitoring of the bilateral adrenal glands and liver nodules for evidence of progression with initial recheck in 4-6 weeks would be ideal.



PATIENT

Lilly Miller

SPECIES

Canine

BREED

Shih Tzu

SEX

Spayed female

AGE

9 years

WEIGHT

21 pounds

INTERPRETED BY

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

IMAGING BY

Loetitia Saint-Jacques,
LVT

HOSPITAL NAME

Pine Creek Veterinry

REFERRING VET

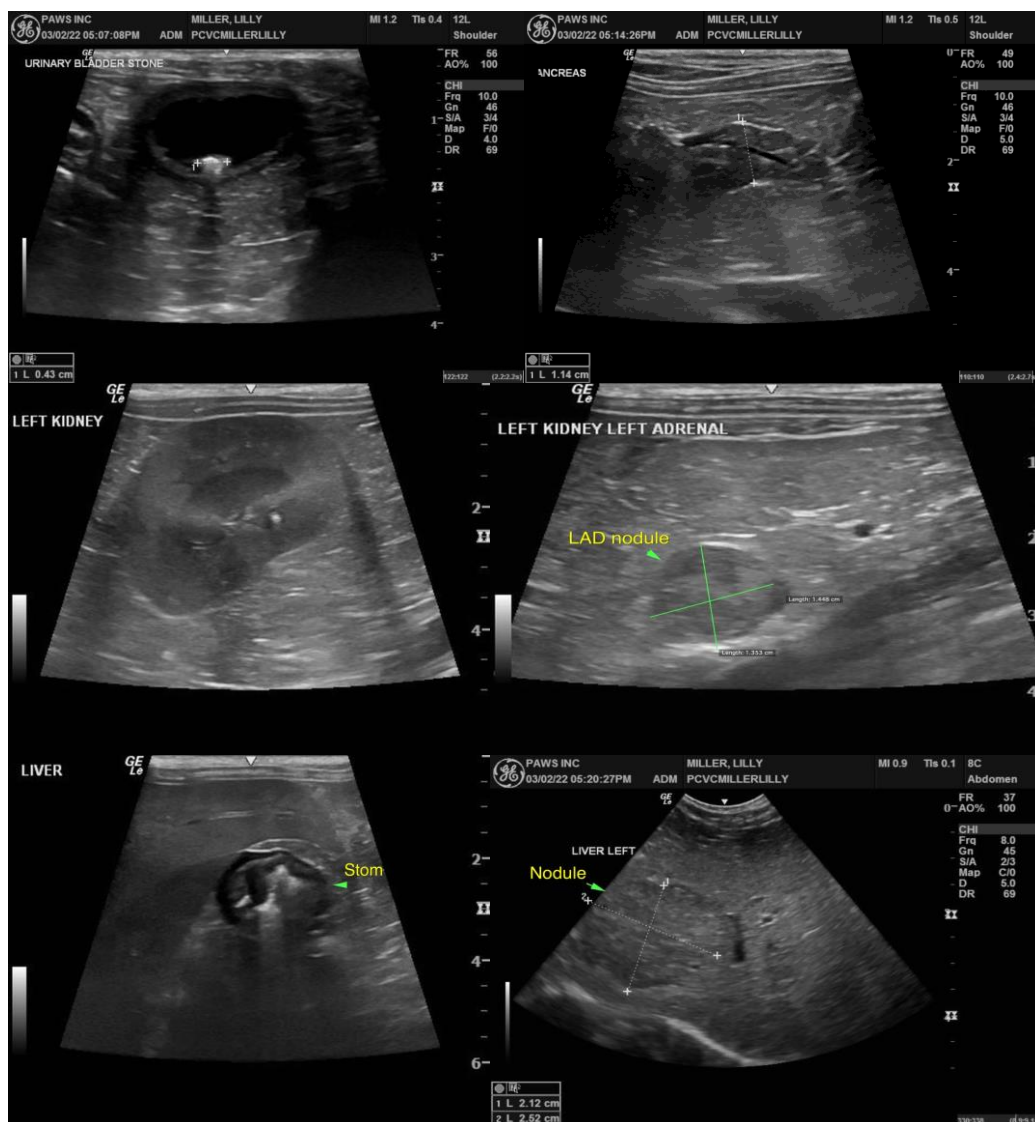
Dr. Denny Nolet

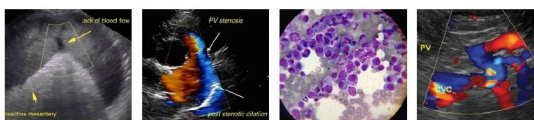
INVOICE

10112ag

DATE

03/02/2022





PATIENT

Lilly Miller

SPECIES

Canine

BREED

Shih Tzu

SEX

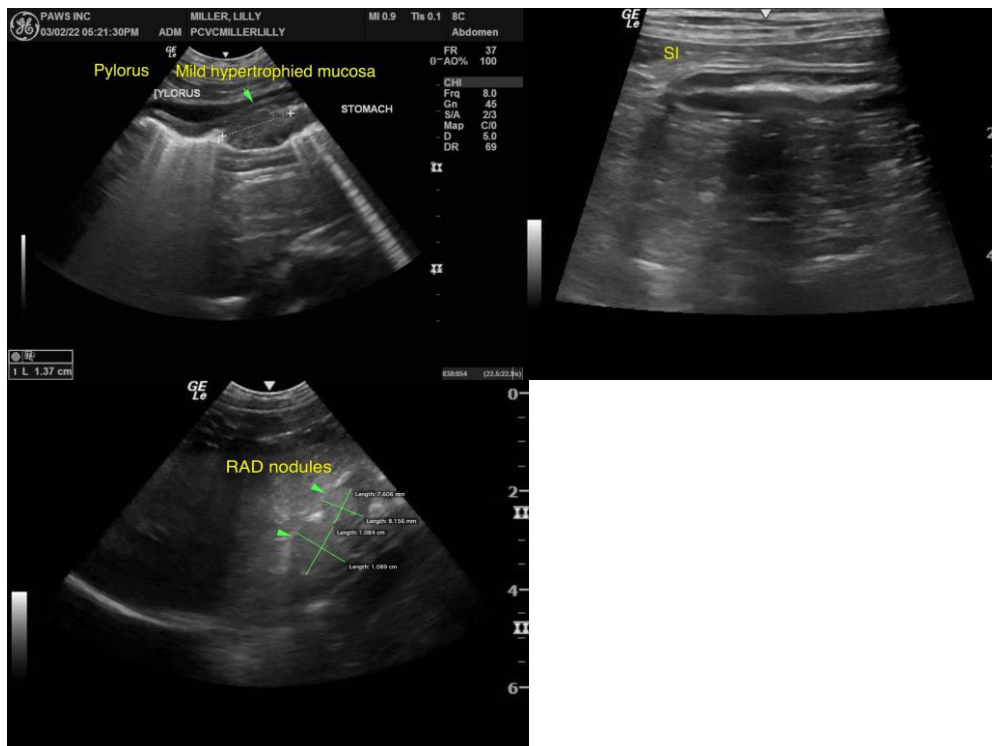
Spayed female

AGE

9 years

WEIGHT

21 pounds



INTERPRETED BY

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

IMAGING BY

Loetitia Saint-Jacques,
LVT

HOSPITAL NAME

Pine Creek Veterinry

REFERRING VET

Dr. Denny Nolet

INVOICE

10112ag

DATE

03/02/2022

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)
info@SonoPath.com