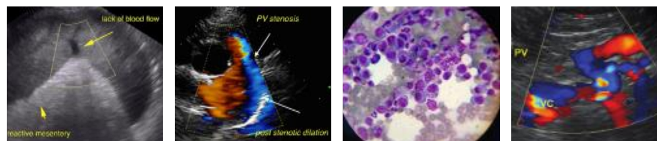


SonoPath.com™
1-800-838-4268 info@sonopath.com

PATIENT

Shadow Mchale

SPECIES

Canine

BREED

Terrier Mix

SEX

MN

AGE

13 years

WEIGHT

17.6

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Hannah Fearing

HOSPITAL NAME

Lanier Animal Hospital

REFERRING VET

Dr. Hannah Fearing

INVOICE

16159

DATE

2/14/23

PRESENTING CLINICAL SIGNS

Shadow is drinking a lot and peeing a lot. He is eating just not all of it in once sitting but will come back to finish. He has had chronic increased liver enzymes

Abnormal PE/Chem/CBC/UA Results: BW 2/4/23: CBC: NSF Chem: slight hyperglycemia (128), mild hyperkalemia (5.9) with normal sodium (151), slight hypochloremia; mildly elevated ALT (230), severely elevated ALP (6518), moderately elevated GGT (39) - all seem to be trending up over time; mild hypercholesterolemia (484) and high lipase (1050) UA: USG = 1.018; 2+ protein (no UPC), 6-10 RBCs, 2-5 WBCs, rare cocci T4: WNL 4Dx: BDLx4 Fecal: NADx4

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm 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 residual prostate was free of pathology.

The area of the aortic trifurcation was free of pathology.

Normal renal size with asymmetrical margination were present in both kidneys. The renal cortex presented uniformly increased in echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Mild loss of corticomedullary distinction was also present. The renal medullary volume was subjectively reduced. Mild nonobstructive medullary mineral was noted in both kidneys. The left kidney measured 5.5 cm in length. The right kidney measured 5.1 cm in length.

Adrenal Glands

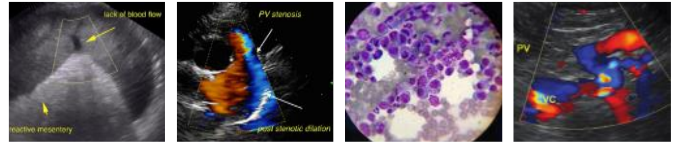
The left adrenal gland was enlarged with mild asymmetrical capsule contour yet maintained capsule integrity with nonhomogeneous to hypoechoic parenchyma exhibiting suspect dystrophic adrenal mineral. The left adrenal gland measured 0.69 cm width at the caudal pole and 1.0 cm width at the cranial pole. The right adrenal gland was prominent in size with mild asymmetrical contour and nonhomogeneous hypoechoic parenchyma. No overt evidence of suspected dystrophic mineral was noted. The right adrenal gland measured 0.71 cm width at the caudal pole and 1.0 cm width at the cranial pole.

Spleen

The spleen exhibited normal size and contour with mild parenchyma heterogeneity. Pinpoint hyperechoic splenic foci were present which may indicate pinpoint areas of microinfarction, fibrosis, or mineralization. No evidence of splenic neoplastic criteria was noted.

Liver/ Gallbladder

The liver was enlarged in size with symmetrical to swollen hepatic contour exhibiting generalized uniform hyperechoic parenchyma compared to the spleen and falciform fat. No masses or nodules were



SonoPath.com™
1-800-838-4268 info@sonopath.com

PATIENT

Shadow Mchale

SPECIES

Canine

BREED

Terrier Mix

SEX

MN

AGE

13 years

WEIGHT

17.6

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Hannah Fearing

HOSPITAL NAME

Lanier Animal Hospital

REFERRING VET

Dr. Hannah Fearing

INVOICE

16159

DATE

2/14/23

noted. Normal splenic vascularity was present. The gallbladder was non distended in size with echogenic, nonmineralized, non dependent biliary sludge. The biliary sludge was non organized with a hypoechoic to anechoic, irregular to interrupted rim visible between the nondependent sludge and inner wall. No signs of peripheral inflammation. The cystic and common bile ducts were normal.

Gastrointestinal

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.

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.

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

Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum, consistent with probable age-related pancreatic changes. No signs of active pancreatitis or neoplasia.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

- Hepatopathy exhibiting parenchyma hyperechogenicity
- Emerging gallbladder mucocele - subjective non-inflamed
- Bilateral adrenomegaly - more prominent left adrenal gland with suspect dystrophic parenchyma mineralization
- Pinpoint hyperechoic splenic foci - benign
- Nonspecific mild chronic renal changes with mild medullary mineral
- Minor pancreatic remodeling

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Full adrenal workup with LDDST or ACTH Stimulation test is recommended. If Cushing's Syndrome is confirmed, the bilateral adrenals may suggest pituitary-dependent hyperadrenocorticism, although the possibility of emerging neoplastic criteria associated with the left adrenal gland cannot be definitively excluded. Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.

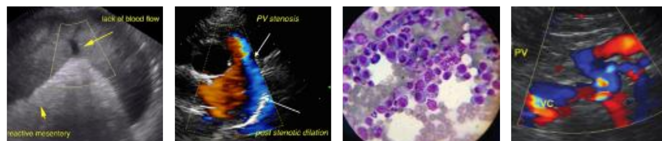
Empirical hepatosupportive medications including Denamarin and Ursodiol may prove beneficial. However, sonographic monitoring of the gallbladder, specifically if increasing cholestasis or evidence of cranial abdominal or subxiphoid discomfort on palpation, is recommended.

Sonographic monitoring of both the left adrenal gland and gallbladder going forward would be ideal. Systemic BP is suggested to assess for evidence of concurrent hypertension.

SonoPath

Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com™

1-800-838-4268 info@sonopath.com

PATIENT

Shadow Mchale

SPECIES

Canine

BREED

Terrier Mix

SEX

MN

AGE

13 years

WEIGHT

17.6

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Hannah Fearing

HOSPITAL NAME

Lanier Animal Hospital

REFERRING VET

Dr. Hannah Fearing

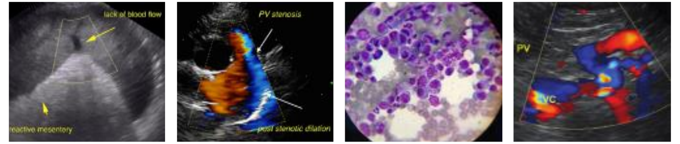
INVOICE

16159

DATE

2/14/23

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Shadow Mchale

SPECIES

Canine

BREED

Terrier Mix

SEX

MN

AGE

13 years

WEIGHT

17.6

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Hannah Fearing

HOSPITAL NAME

Lanier Animal Hospital

REFERRING VET

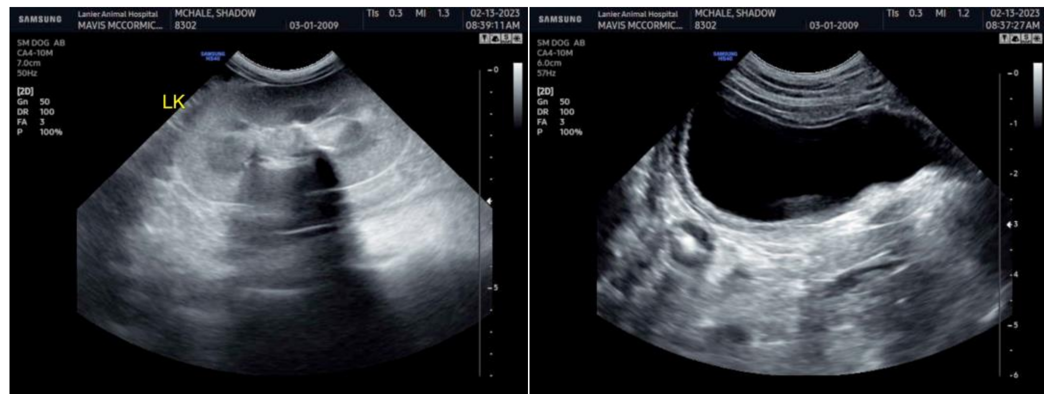
Dr. Hannah Fearing

INVOICE

16159

DATE

2/14/23



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