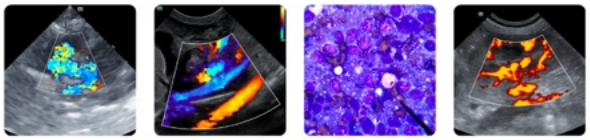


PATIENT

Bart Witmer

SPECIES

Feline

BREED

Domestic Shorthair

SEX

Neutered male

AGE

15 years

WEIGHT

9.9 lbs

INTERPRETED BY

Dr. Alicia Angosto Guerrero

IMAGING PERFORMED BY

Jack Reese

HOSPITAL NAME

Willow Run VC

REFERRING VET

Dr. Leppien

INVOICE

71957

DATE

2/25/26

PRESENTING CLINICAL SIGNS

- Weight loss, normal appetite. Increased aggression at home
- Lost bonded housemate 2 months ago
- Lower urinary symptoms noted at home (blood in urine). Lower urinary symptoms improved with treatment of cystitis
- O increased food intake at home - continued weight loss noted
- USG 1.025 BUN 49 (16-37) Creatinine 1.9 (0.9 - 2.3) T4 2.6 (0.8 - 4.7)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder lumen is normally distended, and the wall appears thin and smooth. The urine is predominantly anechoic with scant suspended echoes. The bladder neck and proximal urethra appear normal. No calculi are identified, and there is no evidence of inflammatory or neoplastic changes.

The left kidney is normal in shape and size: 3.89 x 2.50 cm, and the cortical thickness is 0.41 cm in the sagittal plane. The cortex is hyperechoic compared to the liver parenchyma. The corticomedullary ratio is normal, and corticomedullary definition is preserved. A medullary rim sign is present. Two to three nephroliths in formation are identified, measuring 2.48–3.50 mm. There is no evidence of pyelectasia or hydronephrosis. Color Doppler demonstrates a normal vascular pattern.

The right kidney is normal in shape and size: 4.6 x 2.48 cm, and the cortical thickness is 0.37 cm in the sagittal plane. The cortex is hyperechoic compared to the liver parenchyma. The corticomedullary ratio is normal, and corticomedullary definition is preserved. A mild medullary rim sign is noted. There is no evidence of pyelectasia, nephrolithiasis, or hydronephrosis. Color Doppler demonstrates a normal vascular pattern.

Adrenal Glands

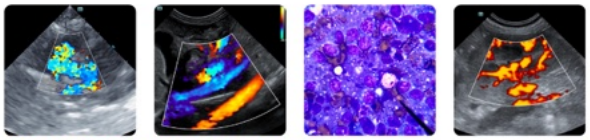
Both adrenal glands show normal shape and echogenicity. Dorsoventral diameters measured in the sagittal plane: The left adrenal gland measures 0.27 cm at the cranial pole and 0.25 cm at the caudal pole. The right adrenal gland measures 0.27 cm at the cranial pole and 0.32 cm at the caudal pole.

Spleen

Splenic thickness is 0.58 cm. The parenchyma demonstrates normal echogenicity and fine homogeneous echotexture without focal abnormalities. The splenic capsule is smooth and regular.

Liver

The liver is subjectively normal in size, with sharp edges and a regular contour. The parenchyma appears uniform and isoechoic compared to the falciform fat, with normal echotexture. No hepatic lymphadenopathy is observed.



PATIENT

Bart Witmer

SPECIES

Feline

BREED

Domestic Shorthair

SEX

Neutered male

AGE

15 years

WEIGHT

9.9 lbs

INTERPRETED BY

Dr. Alicia Angosto Guerrero

IMAGING PERFORMED BY

Jack Reese

HOSPITAL NAME

Willow Run VC

REFERRING VET

Dr. Leppien

INVOICE

71957

DATE

2/25/26

The gallbladder lumen is moderately distended. The wall is thin, and the contents are predominantly anechoic with a small amount of biliary sludge. The common bile duct measures 3.27 mm.

Gastrointestinal

The stomach is empty and folded, with mural thickness of 1.55 mm and preserved wall layering. Pylorus: 3.14 mm.

Duodenum: 1.61 mm. Jejunum: 2.41 mm. Mucosa: 1.38 mm, Submucosa: 0.68 mm, Muscularis propria: 0.39 mm. Ileum: 2.25 mm. Mucosa: 0.97 mm, Submucosa: 0.81 mm, Muscularis propria: 0.37 mm

The ileocecal junction measures 2.84 mm, with muscularis thickness of 0.74 mm.

Wall layering is preserved throughout. No evidence of inflammation, ileus, or foreign material is identified.

Colon: Transverse colon: 0.90 mm. Descending colon: 0.78 mm, with formed fecal material in the lumen (not markedly desiccated and without significant distal acoustic shadowing).

Pancreas

Thickness ranges from 4.35–5.38 mm. The pancreatic parenchyma is isoechoic relative to the adjacent omental fat. The pancreatic duct measures 0.68–1.35 mm in the right limb. No sonographic evidence of active inflammation or neoplastic disease is identified.

Peritoneal Cavity

No sonographic evidence of abdominal effusion, peritonitis, or lymphadenomegaly is identified. The iliac trifurcation appears normal.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS

- Bilateral renal cortical hyperechogenicity with medullary rim sign.
- Small left renal nephroliths.

SECONDARY FINDINGS

- Mild prominence of the common bile duct (3.27 mm)
- Mild pancreatic duct prominence (up to 1.35 mm in right limb).

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The kidneys are normal in size but demonstrate bilateral cortical hyperechogenicity and medullary rim sign, with small forming nephroliths in the left kidney. These findings are most consistent with chronic renal change. In the context of azotemia and an inappropriately low urine specific gravity, early to

PATIENT

Bart Witmer

SPECIES

Feline

BREED

Domestic Shorthair

SEX

Neutered male

AGE

15 years

WEIGHT

9.9 lbs

INTERPRETED BY

Dr. Alicia Angosto Guerrero

IMAGING PERFORMED BY

Jack Reese

HOSPITAL NAME

Willow Run VC

REFERRING VET

Dr. Leppien

INVOICE

71957

DATE

2/25/26

moderate chronic kidney disease is strongly supported. The small left renal nephroliths appear non-obstructive.

The common bile duct demonstrates mild proximal prominence with normal distal tapering. Mild pancreatic duct prominence is also noted. In geriatric cats, concurrent mild dilation of both ducts may be age-related and, in the absence of biochemical or structural evidence of biliary or pancreatic disease, is considered of doubtful clinical significance.

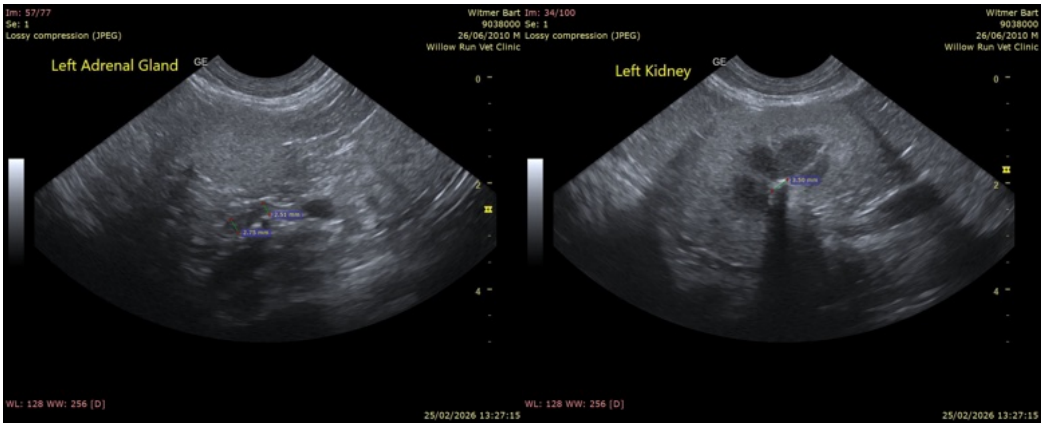
The gastrointestinal tract demonstrates preserved wall layering and normal overall thickness. Muscularis-to-mucosa ratios are as follows:

- Jejunum: 0.39 / 1.38 = 0.28 (within normal limits)
- Ileum: 0.37 / 0.97 = 0.38 (within normal limits)
- Ileocecal junction: 0.74 / (total 2.84 mm) = 0.26 (within normal limits)

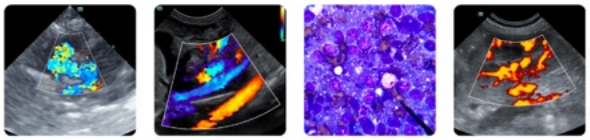
Although early or mild chronic enteropathy cannot be completely excluded, the absence of intestinal wall thickening, abnormal muscularis ratios, or significant lymphadenopathy makes clinically significant inflammatory bowel disease less strongly supported at this time. Current findings more strongly support early chronic kidney disease as a contributor to weight loss.

Recommendations

- Chronic kidney disease staging is recommended, including blood pressure measurement and urine protein assessment if not already performed.
- Renal monitoring and periodic re-evaluation are advised.
- Measurement of serum cobalamin may be considered if weight loss persists, although current ultrasonographic findings do not strongly support clinically significant enteropathy.
- Hyperthyroidism is not currently supported by total T4 concentration; however, repeat thyroid testing may be considered if clinical suspicion persists or clinical signs progress.



SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™



Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath.com | info@sonopath.com | 1.800.838.4268

PATIENT

Bart Witmer

SPECIES

Feline

BREED

Domestic Shorthair

SEX

Neutered male

AGE

15 years

WEIGHT

9.9 lbs

INTERPRETED BY

Dr. Alicia Angosto Guerrero

IMAGING PERFORMED BY

Jack Reese

HOSPITAL NAME

Willow Run VC

REFERRING VET

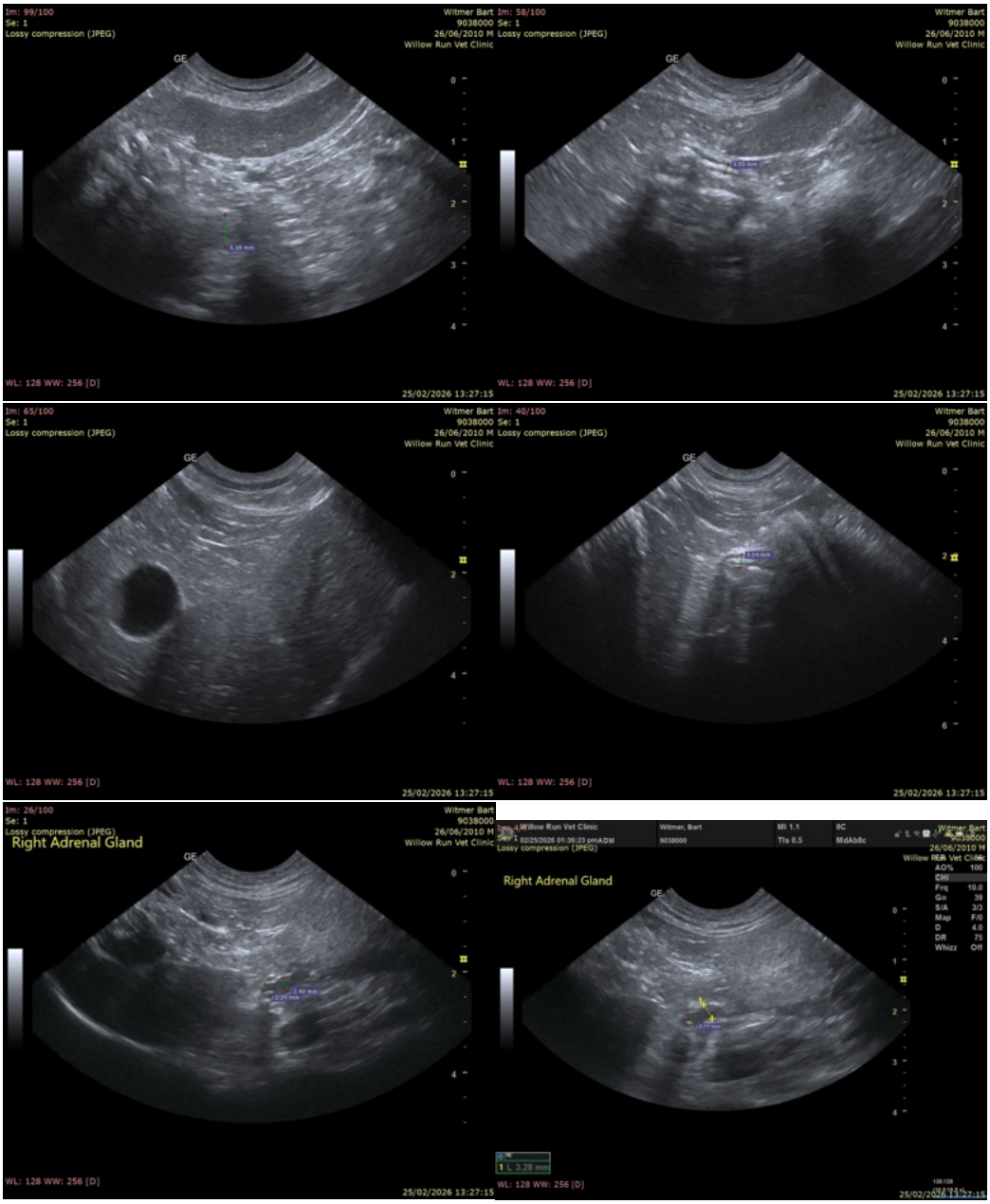
Dr. Leppien

INVOICE

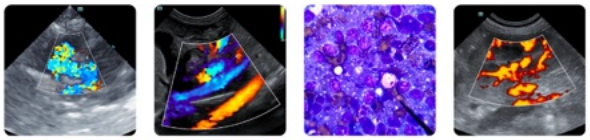
71957

DATE

2/25/26



SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™



Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath.com info@sonopath.com 1.800.838.4268

PATIENT

Bart Witmer

SPECIES

Feline

BREED

Domestic Shorthair

SEX

Neutered male

AGE

15 years

WEIGHT

9.9 lbs

INTERPRETED BY

Dr. Alicia Angosto Guerrero

IMAGING PERFORMED BY

Jack Reese

HOSPITAL NAME

Willow Run VC

REFERRING VET

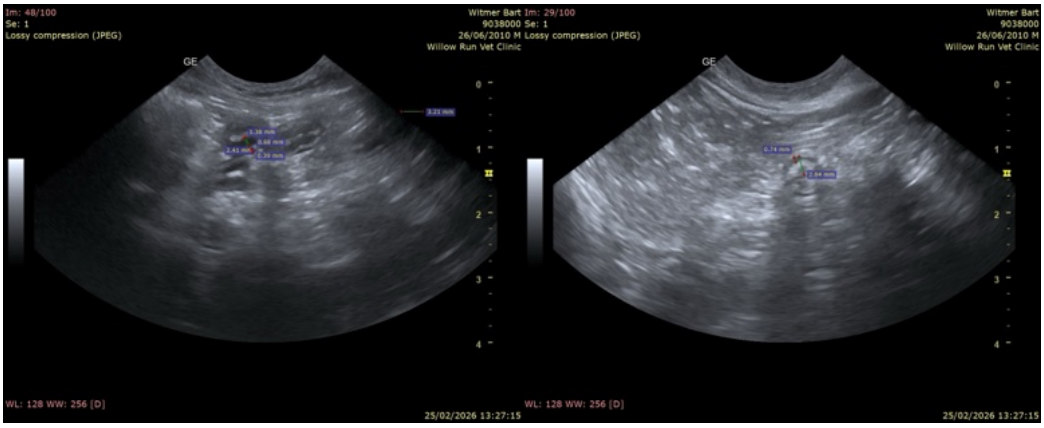
Dr. Leppien

INVOICE

71957

DATE

2/25/26



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.

Alicia Angosto Guerrero, DMV, PgDip, MSc.

MV Esp Ultrasound in Domestic and Wild Animals

info@SonoPath.com