



## PATIENT

Tuffy Bosar

## SPECIES

Canine

## BREED

Mix

## SEX

Spayed female

## AGE

9 years

## WEIGHT

23.8 lbs

## INTERPRETED BY

Dr. Alicia Angosto  
Guerrero

## IMAGING PERFORMED BY

Dr. Arms

## HOSPITAL NAME

Gilbertsville VH

## REFERRING VET

Dr. Alivernini

## INVOICE

71235

## DATE

2/4/26

## PRESENTING CLINICAL SIGNS

- Vomit/anorexia x 1 month. worsening appetite recently
- Hypoalbuminemia, severe proteinuria
- Started telmisartan for proteinuria recently
- Pot belly, light pink mm Alb 1.7 UPC 21 Normal echo normal BP

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder lumen is normally distended. The urinary bladder wall is thickened and irregular. Multiple urinary bladder calculi are present; they are closely clustered and aggregated, which limits accurate individual measurement, but they are estimated to measure approximately 6–8 mm in diameter. There is sonographic evidence of inflammatory change. The bladder neck and proximal urethra have a normal ultrasonographic appearance.

The left kidney is normal in shape and size, measuring 5.42×3.19 cm. Cortical thickness measures 0.60 cm in the sagittal plane. The renal cortex is isoechoic relative to the hepatic parenchyma. The corticomedullary ratio is within normal limits, and corticomedullary definition is preserved. A forming nephrolith measuring 4.6 mm is identified. There is no evidence of pyelectasia or hydronephrosis. Color Doppler interrogation demonstrates a normal vascular pattern.

The right kidney is normal in shape and size, measuring 5.65×2.83 cm. Cortical thickness measures 0.45 cm in the sagittal plane. The renal cortex is isoechoic relative to the hepatic parenchyma. The corticomedullary ratio is within normal limits, and corticomedullary definition is preserved. There is no evidence of pyelectasia, nephrolithiasis, or hydronephrosis. Color Doppler interrogation demonstrates a normal vascular pattern.

### *Adrenal Glands*

Both adrenal glands have normal shape and echogenicity. The left adrenal gland is partially visualized and measures 0.47 cm. The right adrenal gland measures 0.60 cm at the cranial pole and 0.57 cm at the caudal pole.

### *Spleen*

Splenic thickness measures 1.24 cm. The splenic parenchyma has normal echogenicity and a fine, homogeneous echotexture without focal parenchymal abnormalities. The splenic capsule is smooth and regular.

### *Liver*

The liver is subjectively normal in size, with sharp margins and a regular contour. The hepatic parenchyma is uniform and isoechoic relative to the falciform fat, with normal echotexture. No hepatic lymphadenopathy is identified.



## PATIENT

Tuffy Bosar

The gallbladder lumen is normally distended. The gallbladder wall is thin, and the luminal contents are predominantly anechoic. No dilation of the cystic duct or common bile duct is identified.

## SPECIES

Canine

### *Gastrointestinal*

The stomach is empty and folded, containing small amounts of fluid and gas. Gastric mural thickness measures 2.04 mm, with preserved wall layering. The pylorus measures 6.92 mm.

## BREED

Mix

The duodenal wall thickness measures 3.51 mm and contains a small amount of luminal fluid. The jejunal wall thickness measures 2.52 mm. The ileal wall thickness measures 2.40 mm. Wall layering is preserved throughout. No sonographic evidence of gastrointestinal inflammation, ileus, or foreign material is identified.

## SEX

Spayed female

The ascending colon wall thickness measures 1.30 mm and is empty and collapsed. The transverse colon wall thickness measures 1.19 mm and is empty. Formed fecal material is present in the descending colon.

## AGE

9 years

## WEIGHT

23.8 lbs

### *Pancreas*

The right pancreatic limb measures 8.50 mm in thickness. The pancreatic parenchyma is isoechoic relative to the adjacent omental fat. No sonographic evidence of active inflammation or focal pancreatic mass lesions is identified.

## INTERPRETED BY

Dr. Alicia Angosto  
Guerrero

### *Peritoneal Cavity*

No abdominal effusion or evidence of peritonitis is observed. Abdominal lymph nodes are not visualized; the surrounding regions appear unremarkable. The iliac trifurcation appears normal.

## IMAGING PERFORMED BY

Dr. Arms

## ULTRASONOGRAPHIC FINDINGS

## HOSPITAL NAME

Gilbertsville VH

## REFERRING VET

Dr. Alivernini

- Multiple clustered urinary bladder calculi (estimated 6–8 mm) with bladder wall thickening and irregularity
- Forming nephrolith (4.6 mm) in the left kidney.
- Mild luminal fluid within the stomach and duodenum.

## INVOICE

71235

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The urinary bladder demonstrates multiple clustered cystic calculi with associated bladder wall thickening and irregularity, consistent with chronic cystolithiasis and cystitis. These findings represent a likely source of ongoing lower urinary tract inflammation and may contribute to systemic inflammatory burden.

## DATE

2/4/26

The kidneys are normal in size and architecture, with preserved corticomedullary definition and no evidence of obstructive uropathy. A small forming nephrolith is present in the left kidney, without associated pelvic dilation. Importantly, no ultrasonographic features of chronic structural nephropathy



## PATIENT

Tuffy Bosar

## SPECIES

Canine

## BREED

Mix

## SEX

Spayed female

## AGE

9 years

## WEIGHT

23.8 lbs

## INTERPRETED BY

Dr. Alicia Angosto  
Guerrero

## IMAGING PERFORMED BY

Dr. Arms

## HOSPITAL NAME

Gilbertsville VH

## REFERRING VET

Dr. Alivernini

## INVOICE

71235

## DATE

2/4/26

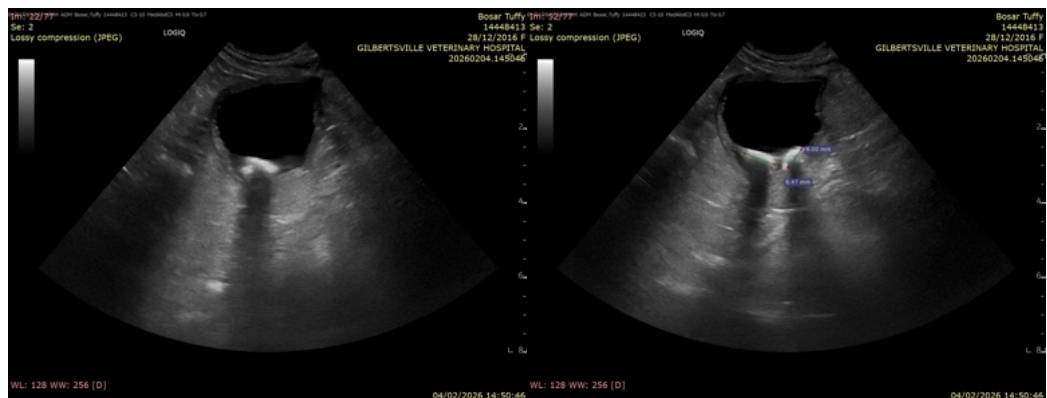
are identified, recognizing that glomerular disease and protein-losing nephropathy frequently lack specific ultrasonographic abnormalities.

Gastric and duodenal wall thicknesses are within expected limits for a dog of this size, with preserved wall layering. Small amounts of luminal fluid are considered nonspecific. No ultrasonographic evidence of mucosal hyperechoic stippling or vertical hyperechoic striations is identified. Overall, no ultrasonographic features suggestive of intestinal lymphangiectasia or infiltrative disease are observed to explain the hypoalbuminemia.

The liver and biliary system are unremarkable, and no abdominal effusion is identified despite the marked hypoalbuminemia.

### Recommendations

- Address the cystolithiasis and associated cystitis, as these represent a clear source of chronic inflammation; consideration should be given to urinalysis with sediment examination, urine culture, and stone analysis if removal is pursued.
- Continue management of protein-losing nephropathy as a glomerular process, recognizing that the absence of structural renal abnormalities on ultrasound does not exclude significant glomerular disease.
- Monitor renal parameters, UPC, serum albumin, and blood pressure serially, particularly following initiation of telmisartan.





## PATIENT

Tuffy Bosar

## SPECIES

Canine

## BREED

Mix

## SEX

Spayed female

## AGE

9 years

## WEIGHT

23.8 lbs

## INTERPRETED BY

Dr. Alicia Angosto  
Guerrero

## IMAGING PERFORMED BY

Dr. Arms

## HOSPITAL NAME

Gilbertsville VH

## REFERRING VET

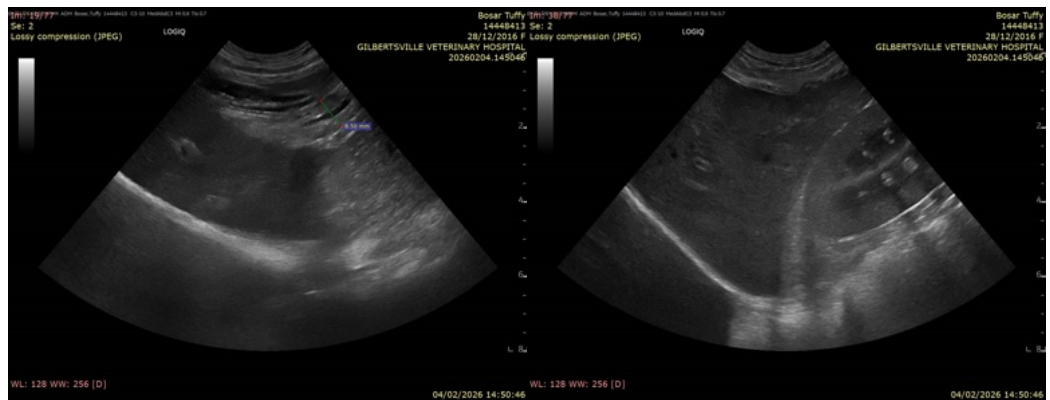
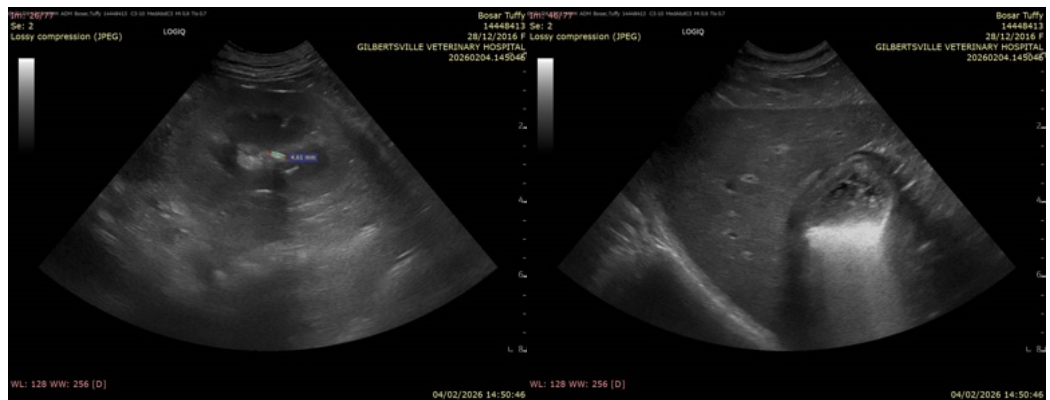
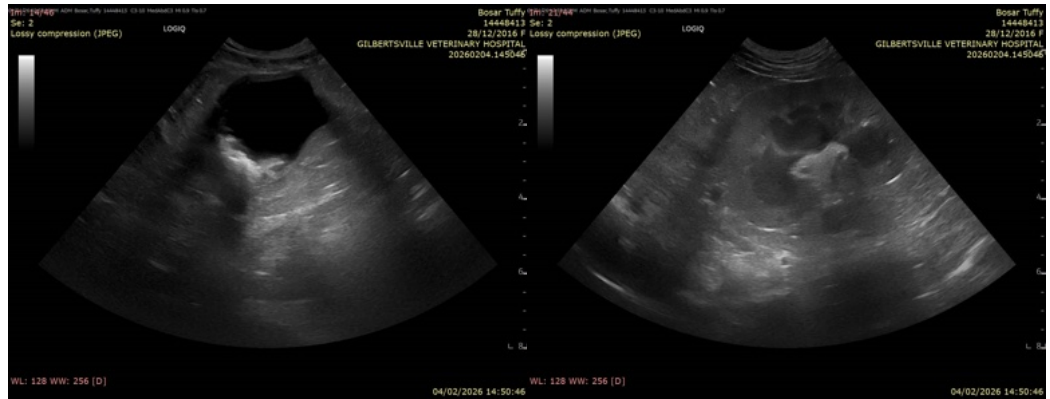
Dr. Alivernini

## INVOICE

71235

## DATE

2/4/26





## PATIENT

Tuffy Bosar

## SPECIES

Canine

## BREED

Mix

## SEX

Spayed female

## AGE

9 years

## WEIGHT

23.8 lbs

## INTERPRETED BY

Dr. Alicia Angosto  
Guerrero

## IMAGING PERFORMED BY

Dr. Arms

## HOSPITAL NAME

Gilbertsville VH

## REFERRING VET

Dr. Alivernini

## INVOICE

71235

## DATE

2/4/26



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](mailto:info@SonoPath.com)