



## PATIENT

George Williams

## SPECIES

Canine

## BREED

Scottish Terrier

## SEX

MN

## AGE

12yr

## WEIGHT

34lb

## INTERPRETED BY

Alicia Angosto  
Guerrero, DMV,  
PgDip, MSc.

## IMAGING PERFORMED BY

Amanda Hockenbrock

## HOSPITAL NAME

Lewisburg Veterinary  
Hospital

## REFERRING VET

Dr. Lindsay  
Huepenbecker

## INVOICE

23128

## DATE

12/5/2025

## PRESENTING CLINICAL SIGNS

1-2 weeks patient seems off, reduced energy/appetite Started Clavamox/Denamarin on Wed 12-3-2025.

Abnormal PE/Chem/CBC/UA Results: Yellow sclera and MM on PE elevated ALT/AKLP (wouldn't read on machine) as well as TBIL, CHOL, and GGT. Rads were benign.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The bladder lumen is normally distended, and the wall of the urinary bladder appears thin and smooth. The urine is anechoic. Normal appearance of the proximal urethra and vesicoureteral junction. There are no calculi and no evidence of inflammatory or neoplastic changes.

The left kidney is normal in shape and size: 4.81×2.74 cm, and the thickness of the cortex is 0.46 cm in the sagittal plane. The cortex is isoechoic compared to liver parenchyma. The corticomedullary ratio is normal and the corticomedullary definition is preserved. There is no evidence of pyelectasia, nephroliths, or hydronephrosis.

The right kidney is normal in shape and size: 5.06×2.90 cm, and the thickness of the cortex is 0.46 cm in the sagittal plane. The cortex is isoechoic compared to liver parenchyma. The corticomedullary ratio is normal and the corticomedullary definition is preserved. There is no evidence of pyelectasia, nephroliths, or hydronephrosis.

Prostate: 1.96×0.91 cm, small, homogeneous, and hypoechoic, compatible with post-orchietomy atrophy.

### Adrenal Glands

The left adrenal gland measures 0.54 cm at the cranial pole and 0.72 cm at the caudal pole. The right adrenal gland appears slightly blurry, and the margins are not clearly defined, but it approximately measures 0.98 cm at the cranial pole and 0.75 cm at the caudal pole.

### Spleen

Splenic thickness is 1.79 cm. The parenchyma demonstrates normal echogenicity and fine homogeneous echotexture, except for a hyperechoic nodule measuring 2.47×2.62 cm (from one angle) and 2.72×2.64 cm (from another angle).

### Liver

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

The gallbladder lumen is moderately distended. There is a moderate amount of immobile sludge with an early striated appearance. No evident dilation of the cystic duct or common bile duct is observed.

### Gastrointestinal



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The stomach is empty and folded, with mural thickness (3.48 mm) and preserved wall layering. The pylorus contains a small amount of fluid and scant food remnants. Duodenum: 2.45 mm. Jejunum: 2.94 mm, normal wall layering.

Colon: 0.98 mm, with formed feces in the descending segment.

### **Pancreas**

The right pancreatic limb appeared normal. The remainder of the pancreas was not visualized, but no evidence of inflammation was noted.

### **Free Abdomen**

No abdominal effusion or peritonitis is observed. Cranial mesenteric lymph nodes are not visualized but the surrounding regions appeared unremarkable. The iliac trifurcation is normal.

### **PRIMARY FINDINGS**

- Large hyperechoic splenic nodule (2.5–2.7 cm) — likely benign (myelolipoma / nodular hyperplasia / siderotic plaque).
- Early biliary mucocele.
- Right adrenal at the upper end of the physiological range.

### **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

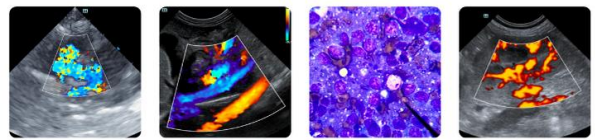
Abdominal ultrasonography reveals a moderately distended gallbladder containing immobile echogenic material with an early striated pattern, which is most consistent with a developing gallbladder mucocele. This finding correlates well with the dog's marked cholestatic biochemical profile and clinical icterus.

The single, large hyperechoic splenic nodule (≈2.5–2.7 cm). Its homogeneous hyperechoic pattern without cavitation, mineralization, or distortion of splenic architecture is most consistent with benign splenic disease, such as myelolipoma, nodular hyperplasia, or siderotic plaque. Malignancy is less likely given the echogenic pattern; splenic sarcomas in dogs—especially in terriers—typically appear heterogeneous, hypoechoic, and irregular, which is not the case here.

The right adrenal measures at the upper end of the physiologic range.

#### Recommendations

- Repeat abdominal ultrasound to monitor for progression of the mucocele.
- Consider surgical consultation for elective cholecystectomy, especially if liver values remain elevated or the mucocele progresses.
- Monitor liver enzymes and bilirubin serially.
- The splenic nodule appears benign; recheck ultrasound or FNA can be considered if growth is noted or clinical concerns arise.
- If clinical signs consistent with hyperadrenocorticism develop, or if clinical suspicion exist, ACTH stimulation testing or a low-dose dexamethasone suppression test would be appropriate. Dogs with Cushing's disease are predisposed to gallbladder mucocele formation, and the right adrenal gland—while still within physiologic variation—lies at the upper end of the expected size range.



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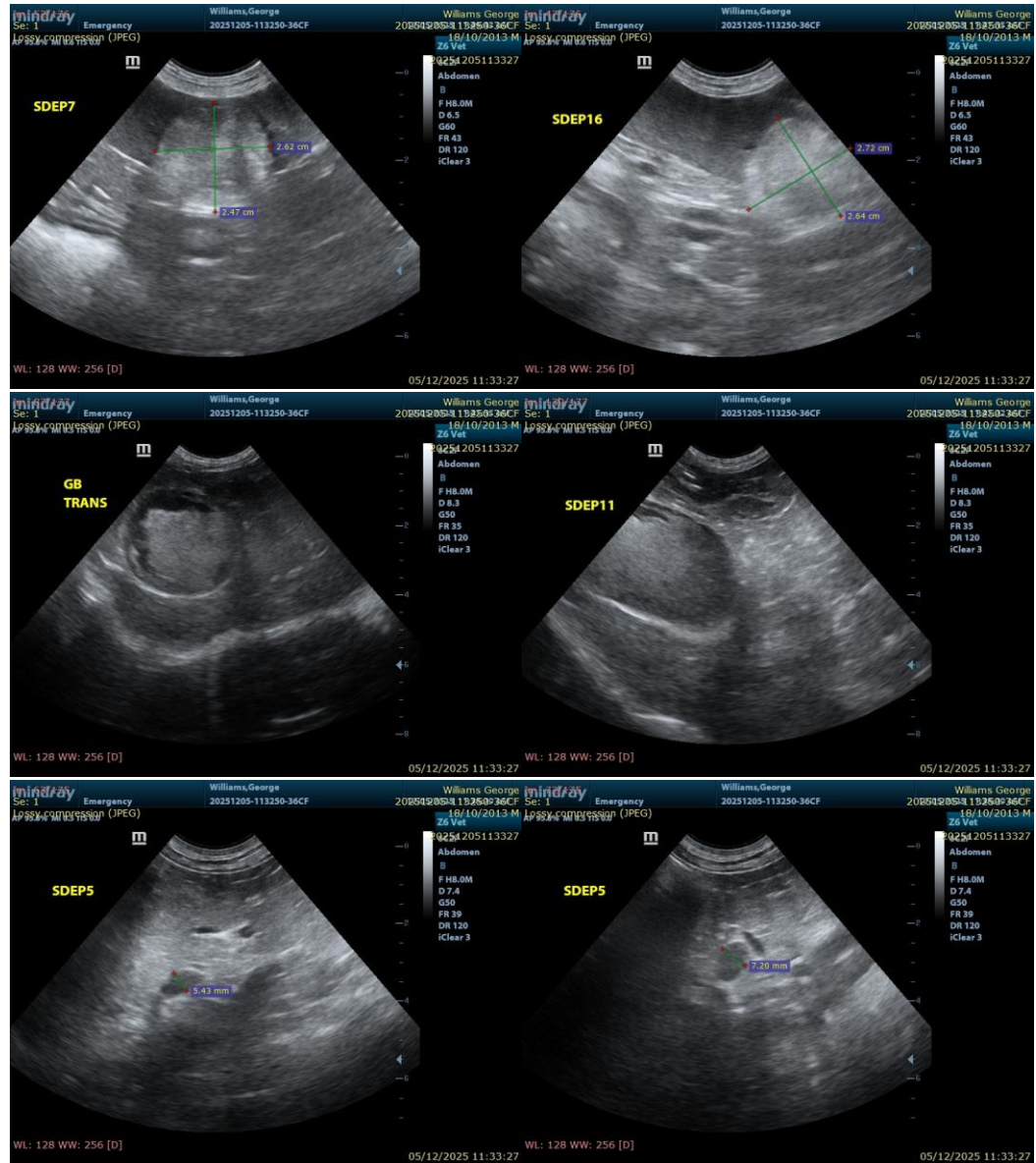
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

[info@SonoPath.com](mailto:info@SonoPath.com)