



**PATIENT**

Cakes Murphy

**SPECIES**

Canine

**BREED**

Yorkshire Terrier Mix

**SEX**

FS

**AGE**

13yr

**WEIGHT**

4.75kg

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Dr Brian J Barnes

**HOSPITAL NAME**

Westview Veterinary  
Hospital

**REFERRING VET**

Dr Brian J Barnes

**INVOICE**

14391ag

**DATE**

07/17/2023

**PRESENTING CLINICAL SIGNS**

1) Hepatic neoplasia R/O on FNA and BX 2) Hepatic multifocal inflammatory changes, Vacuolar Hepatopathy 3) Emerging Mucocele 4) Prominent Abdominal LN 5) Degenerative renal disease (no history of renal changes on bloodwork, though non hyaline casts today in urine, low usg) 6) Borderline bilateral Adrenomegaly (low usg today) 7) incontinence 8) Sore back not wagging the tail Last AUS JAn 2023

Abnormal PE/Chem/CBC/UA Results: CBC: RBC 5.45 (N 5.65-8.87) Increased PCT CHEM: BUN 28 (n 7-27) ALT 231 (N 10-125) Alkp 367 (N 23-212)

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths, calculi or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild to moderate loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Bilateral non-obstructive medullary mineral to nephrolithiasis was present primarily in the lateral diverticuli. The left kidney measured 3.8 cm in length. The right kidney measured 3.8 cm in length.

The area of the aortic trifurcation was free of pathology.

**Adrenal Glands**

The bilateral adrenal glands exhibited borderline prominent size based on caudal pole measurement and body weight. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 0.52 cm width in the cranial pole and 0.58 cm width in the caudal pole. The right adrenal gland measured 0.46 cm width in the cranial pole and 0.59 cm width in the caudal pole.

**Spleen**

The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Multiple coalescing well-defined, symmetrical, hyperechoic nodules were present throughout the medial 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 or neoplastic changes were not noted. The hyperechoic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas.

**Liver/Gallbladder**

The liver was subjectively mildly enlarged with symmetrical contour and generalized non-homogenous hyperechoic to mixed echogenic parenchyma. Diffuse to variably sized subtle hypoechoic parenchymal nodular changes were present, an example measured 2.2 cm in diameter. Normal vascular volume. The



<b>PATIENT</b>	hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content with moderate inspissated yet non-organized hyperechoic sediment. The cystic and common bile ducts were normal.
Cakes Murphy	
<b>SPECIES</b>	<b>Gastrointestinal</b>
Canine	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.
<b>BREED</b>	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.
Yorkshire Terrier Mix	Normal visible colon wall layers were present with apparent formed feces in lumen.
<b>SEX</b>	<b>Pancreas</b>
FS	The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum, likely consistent with age related changes and considered incidental. No signs of active inflammation or neoplasia.
<b>AGE</b>	<b>Free Abdomen</b>
13yr	No omental masses, overt lymphadenopathy or peritoneal effusion was present.
<b>WEIGHT</b>	<b>ULTRASONOGRAPHIC FINDINGS</b>
4.75kg	<ul style="list-style-type: none"> <li>• Non-homogenous/nodular liver-subjectively static compared to the previous study, likely consistent with vacuolar hepatopathy based on previous sampling. Vacuolar hepatopathy, inflammatory/immune mediated disease, hematopoiesis, hyperplasia, fibrosis or other infiltrative neoplasia possible.</li> <li>• Inspissated gallbladder sediment (non-mucocele)-subjectively static.</li> <li>• Chronic renal changes with static non-obstructive medullary mineral/nephrolithiasis.</li> <li>• Static borderline adrenomegaly.</li> <li>• Benign splenic nodules-consistent with myelolipomas.</li> </ul>
<b>INTERPRETED BY</b>	<b>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</b>
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	Overall, a static abdomen with previous noted abnormalities and no evidence of progressive pathology.
<b>IMAGING PERFORMED BY</b>	Hepatosupportive medications such as Denamarin and Ursodiol due to its antioxidant and immunomodulatory effects within the liver would be warranted, although these medications may not result in decreased hepatic enzyme levels.
Dr Brian J Barnes	
<b>HOSPITAL NAME</b>	Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.
Westview Veterinary Hospital	Infiltrative hepatic neoplasia is considered less likely.
<b>REFERRING VET</b>	An adrenal workup is only suggested if clinical signs consistent with Cushing's syndrome are present/arise.
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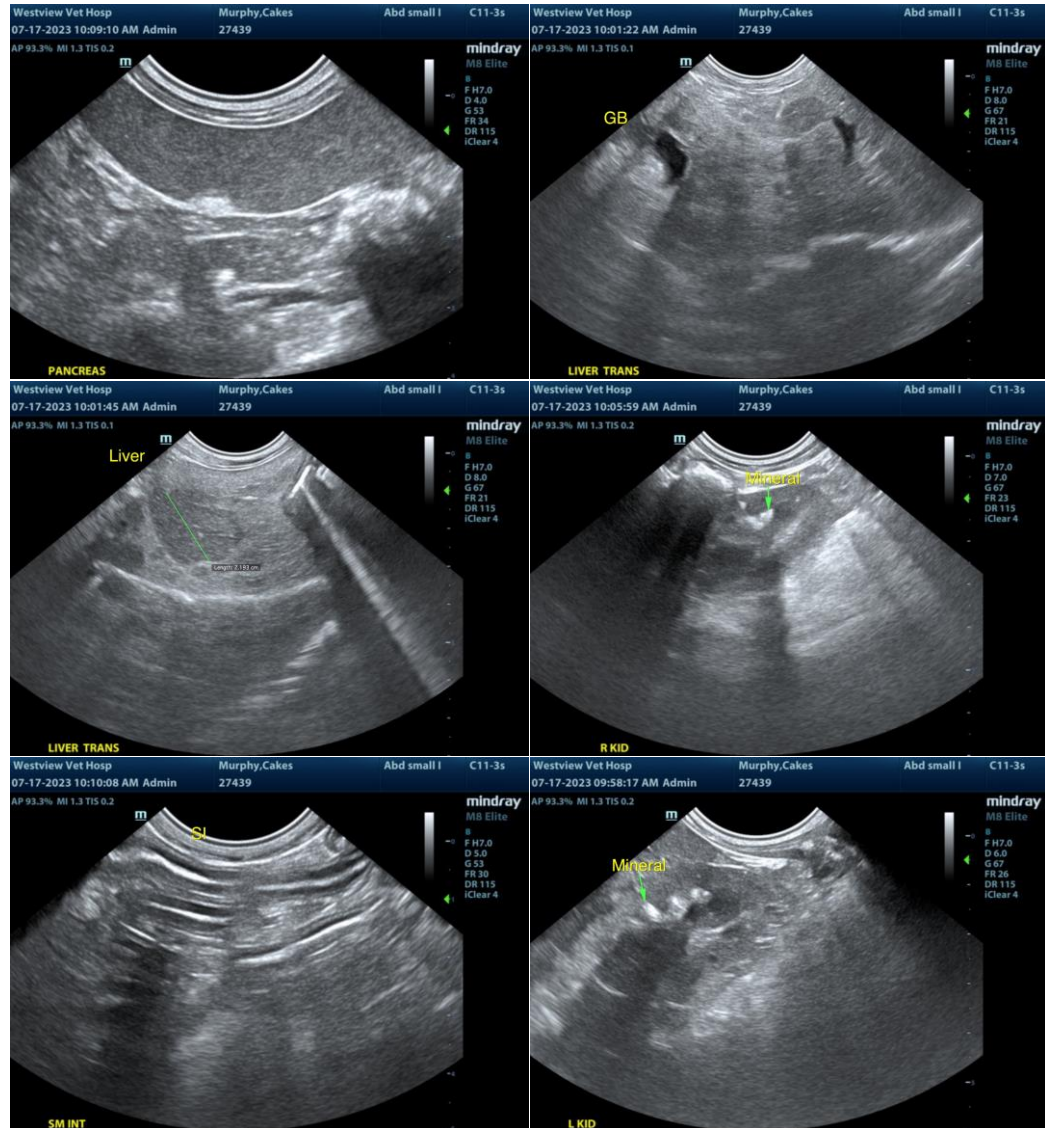
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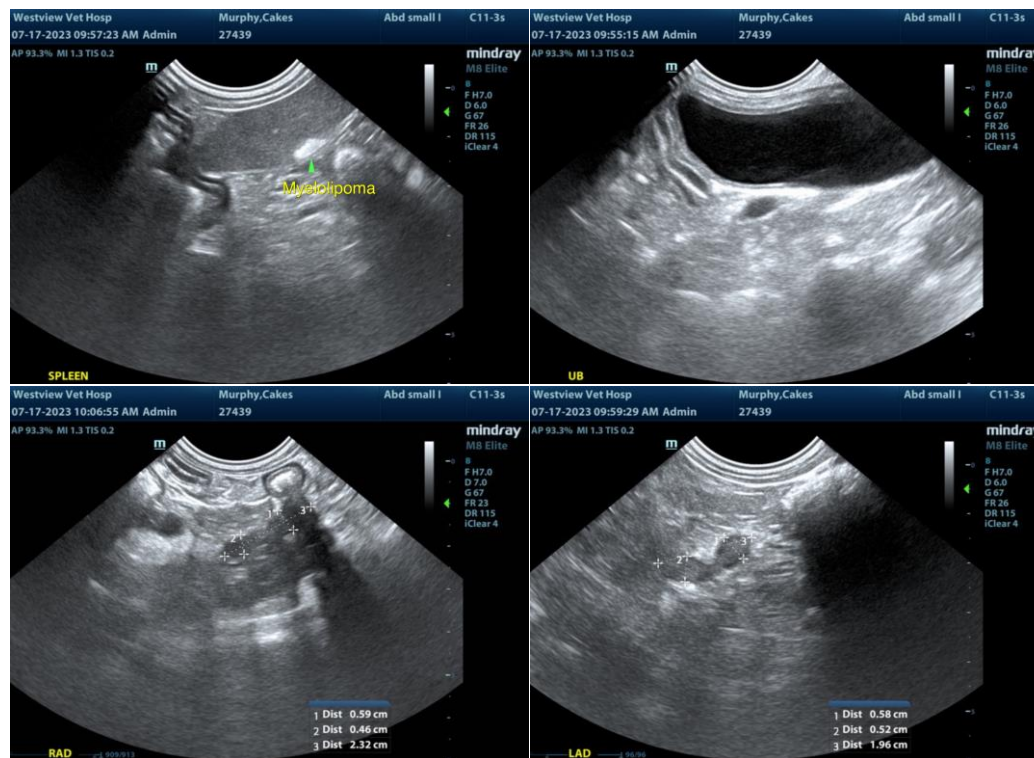
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**INTERPRETED BY**

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

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.

**IMAGING PERFORMED BY**

Dr Brian J Barnes

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)  
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