



**PATIENT**

Benny McPhillips

**SPECIES**

Canine

**BREED**

Shetland Sheepdog X

**SEX**

Neutered Male

**AGE**

11

**WEIGHT**

22

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Christensen

**HOSPITAL NAME**

Tranquility VC

**REFERRING VET**

Dr. Christensen

**INVOICE**

44360

**DATE**

1/19/23

**PRESENTING CLINICAL SIGNS**

Enlarged spleen and bladder calculi seen on routine x-ray.  
Abnormal PE/Chem/CBC/UA Results: Pending BW/UA/Urine culture.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

Urinary bladder is adequately distended with primarily anechoic contents and occasional echogenic non-shadowing debris. Apical urinary bladder wall is diffusely thick (0.56 cm). Mucosa is hyperechoic and irregular. No masses are observed. A couple shadowing cystoliths are present, the largest of which measures 0.70 cm. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface.

Prostate is normal in size, echotexture and echogenicity for a neutered male.

The right kidney is normal in size (4.95 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

The left kidney is normal in size (5.21 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**Adrenal Glands**

The right adrenal gland is normal in size (0.79 cm at the cranial pole and 0.52 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.41 cm at the cranial pole and 0.50 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**Spleen**

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). Multifocal well-demarcated hyperechoic homogenous nodules are noted. Additionally, along the cranial aspect of the spleen, there is a heterogeneous, primarily hypoechoic 0.80 cm nodule resulting in a mild capsular bulge. Splenic vasculature appears normal.

**Liver**

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

**Gastrointestinal**

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of



<b>PATIENT</b>	obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.
Benny McPhillips	
<b>SPECIES</b>	The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.
Canine	
<b>BREED</b>	The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.
Shetland Sheepdog X	
<b>SEX</b>	<b>Pancreas</b> The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.
Neutered Male	
<b>AGE</b>	<b>Free Abdomen</b> There is no evidence of free peritoneal effusion noted in these images.
11	
<b>WEIGHT</b>	There is no apparent lymphadenopathy noted in these images.
22	No evidence of pericardial effusion noted in these images.
<b>INTERPRETED BY</b>	<b>PRIMARY FINDINGS</b>
Beth Johnson, DVM DACVIM	<ul style="list-style-type: none"> <li>• <b>Hyperechoic splenic nodules</b> – most consistent with benign myelolipomas. Other differentials such as fibrosis or calcification caused by old hematomas or infarcts, chronic inflammation, granulomatous disease or metastatic disease cannot be ruled out, but are considered less likely.</li> <li>• <b>Hypo to anechoic splenic nodule</b> – likely represents a benign lesion such as a cyst, hematoma, nodular hyperplasia, extramedullary hematopoiesis, etc., however while considered less likely, infiltrative neoplasia can mimic benign lesions, and cannot be ruled out.</li> <li>• <b>Heterogenous Liver</b> – These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.</li> </ul>
<b>IMAGING PERFORMED BY</b>	<b>SECONDARY FINDINGS</b>
Dr. Christensen	<ul style="list-style-type: none"> <li>• <b>Chronic Cystitis with a couple cystoliths noted</b> - Urinary bladder wall changes are most consistent with chronic cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely given the location and diffuse nature of the changes.</li> </ul>
<b>HOSPITAL NAME</b>	<b>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</b>
Tranquility VC	As is reportedly already pending, a general metabolic health screen including CBC/Chem panel, electrolytes, and urinalysis are recommended. If indicated based on urinalysis results, a urine culture may be considered to help better guide management of the cystoliths.
<b>REFERRING VET</b>	While the appearance of the splenic changes trend toward benign in appearance, the slight capsular bulge is concerning, and options include either a fine needle aspirate of the nodule (if patient's coagulation status is appropriate) or a less invasive option is close monitoring of the nodule, beginning with a recheck ultrasound in 4-6 weeks.
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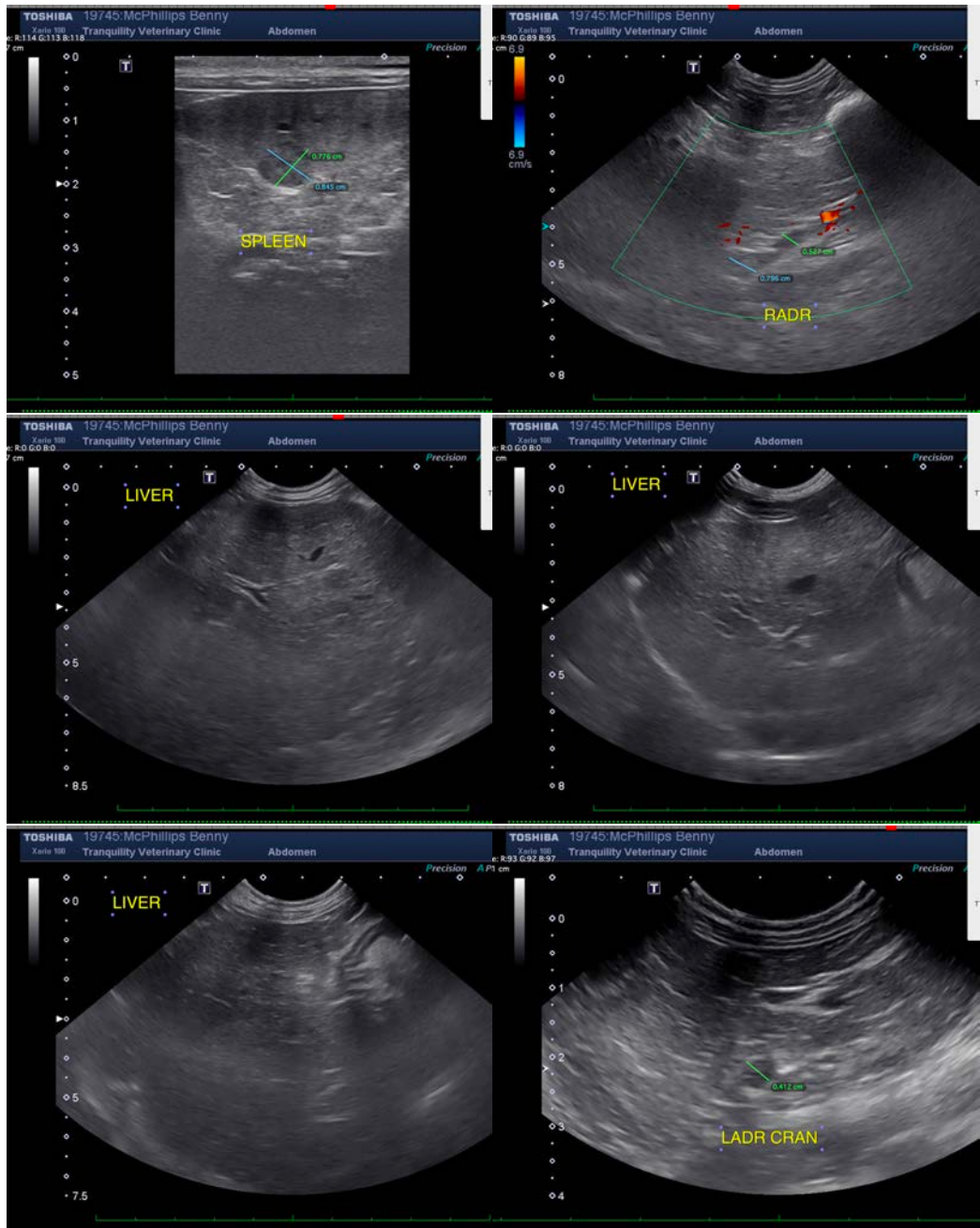
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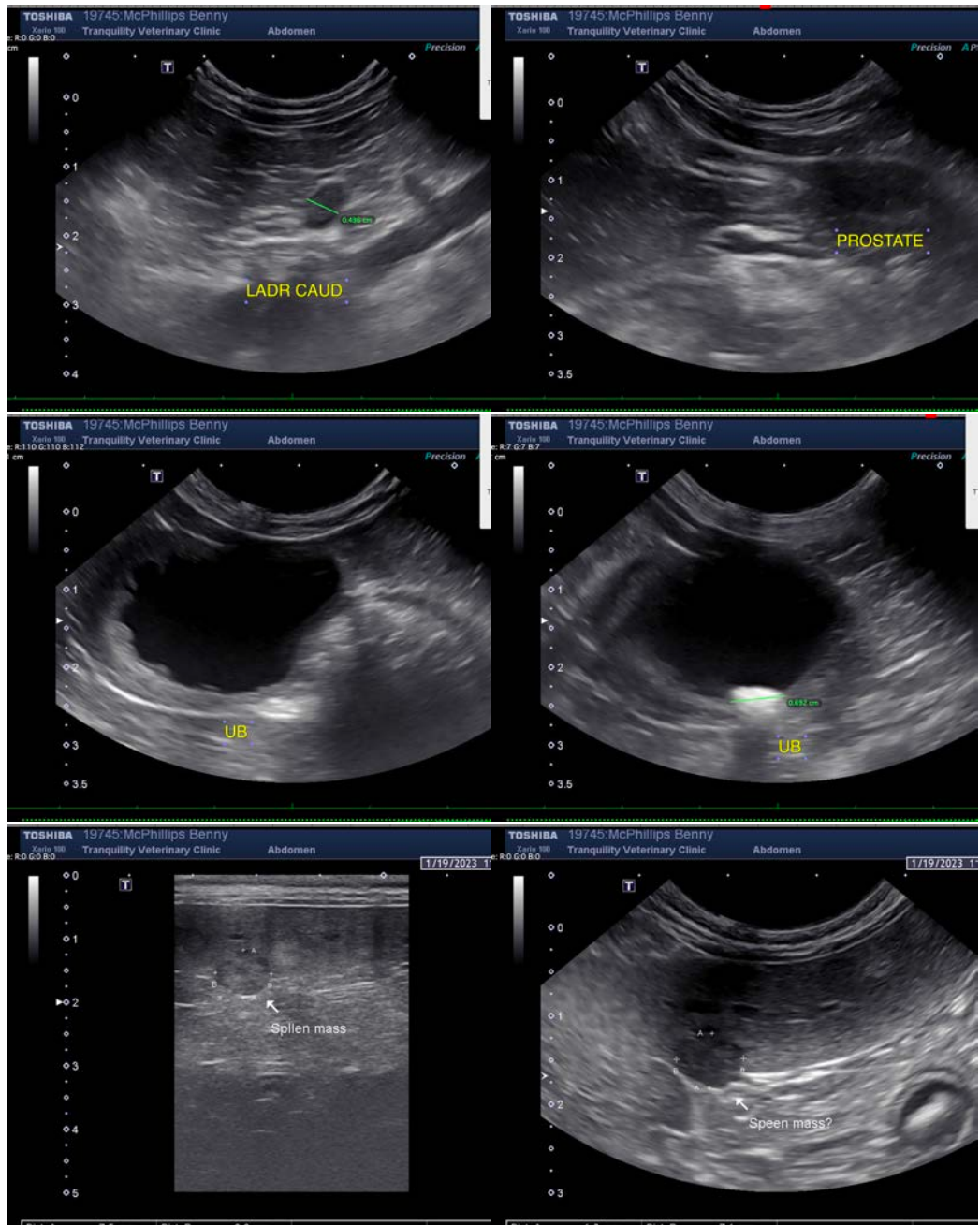
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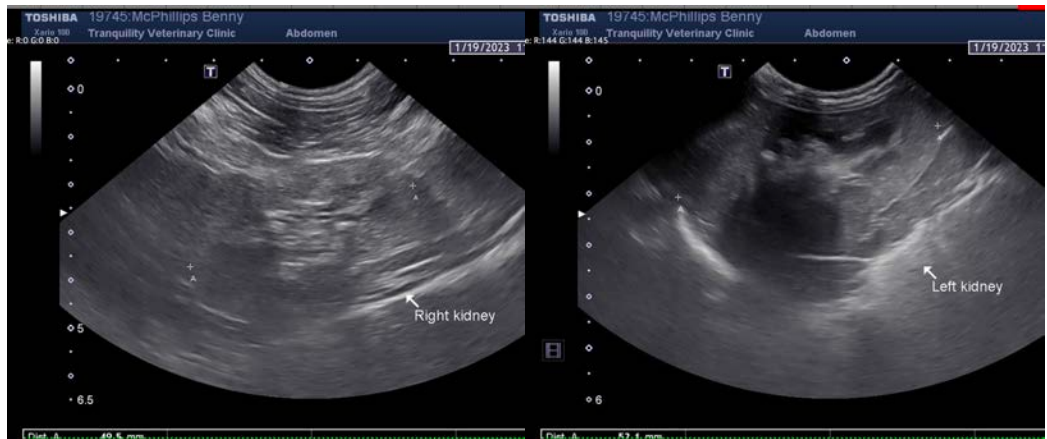
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Beth Johnson, DVM, DACVIM**  
Beth.Johnson@sonopath.com