



**PATIENT**

Ringo Rivera

**SPECIES**

Canine

**BREED**

Yorkshire Terrier

**SEX**

Neutered male

**AGE**

13 years

**WEIGHT**

6 lbs

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Kelly Vazquez, CVT

**HOSPITAL NAME**

Animal General on Hudson

**REFERRING VET**

Dr. Lang

**INVOICE**

31196

**DATE**

6/20/22

**PRESENTING CLINICAL SIGNS**

History: Patient with previous history of seizure activity (was on anti-seizure meds), but had been discontinued. History of tracheal collapse. Owner reports Ringo was coughing and fell over, not like a seizure but more like a syncopal episode.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The prostate is normal for a neutered dog.

Left kidney is normal is size (3.35 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.

Right kidney is normal is size (3.63 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**

Left adrenal gland is normal in size (1.35 cm long, 0.5 at cranial pole and 0.57 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

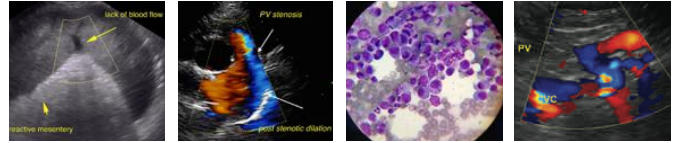
Right adrenal gland is normal in size (1.39 cm, 0.53 cm at cranial pole and 0.5 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

**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). An approximately 1.0 cm round, mixed, partially cavitated nodule was noted near the head of the spleen, but results in a small capsular bulge. Splenic vasculature appears normal.

**Liver**

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. A 0.7 x 1.0 cm, hypoechoic nodule was noted ventrally. Visible vasculature and biliary tree appear normal without distension or congestion.



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Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

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Canine

**Gastrointestinal**

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

**BREED**

Yorkshire Terrier

The visible small intestines are normal in wall thickness and layering. 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.

**SEX**

Neutered male

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

**AGE**

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**Pancreas**

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

**WEIGHT**

6 lbs

**Free Abdomen**

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

There is no evidence of peritoneal effusion or apparent lymphadenopathy noted in these images. However, ring downs are noted at the level of the diaphragm. This is suggestive of pulmonary pathology.

**ULTRASONOGRAPHIC FINDINGS**

**IMAGING PERFORMED BY**

Kelly Vazquez, CVT

**PRIMARY FINDINGS:**

Mixed, partially cavitated splenic nodule. Differentials include benign disease such as a cyst or hematoma, extramedullary hematopoiesis, etc. as well as infiltrative neoplasia such as sarcoma or round cell neoplasia, which can mimic benign lesions on ultrasound.

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Hyperechoic hepatomegaly – This appearance is most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Infiltrative neoplasia such as round cell neoplasia is also possible, but considered less likely. Hypoechoic lesion that is most consistent with benign nodular hyperplasia. Infiltrative neoplasia cannot be ruled out, but is considered less likely.

**REFERRING VET**

Dr. Lang

Gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease.

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Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

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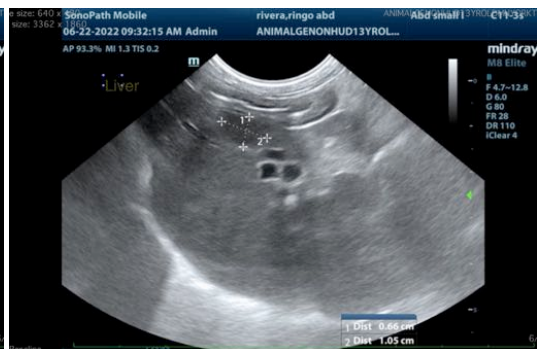
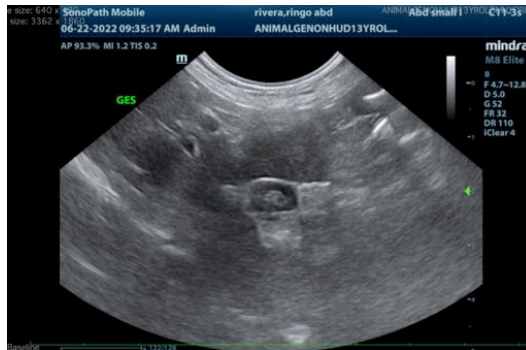
**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The suspected cause given the images provided for this patient's syncopal episode is cardiopulmonary disease and further investigation in the form of thoracic radiographs and an echocardiogram is recommended.

Blood pressure is recommended if not recently evaluated.

CBC, chem panel with electrolytes and urinalysis is recommended if not recently evaluated with follow-up urine protein to creatinine ratio if there is protein in the urinalysis with an otherwise quiet sediment, as protein losing nephropathies can result in vascular events/stroke like behavior.

The splenic and liver nodule are considered incidental findings and not related to this patient's reported clinical signs. However, FNA of the splenic nodule/ mass is recommended if the patient's coagulation status is appropriate and he is stable for the procedure.





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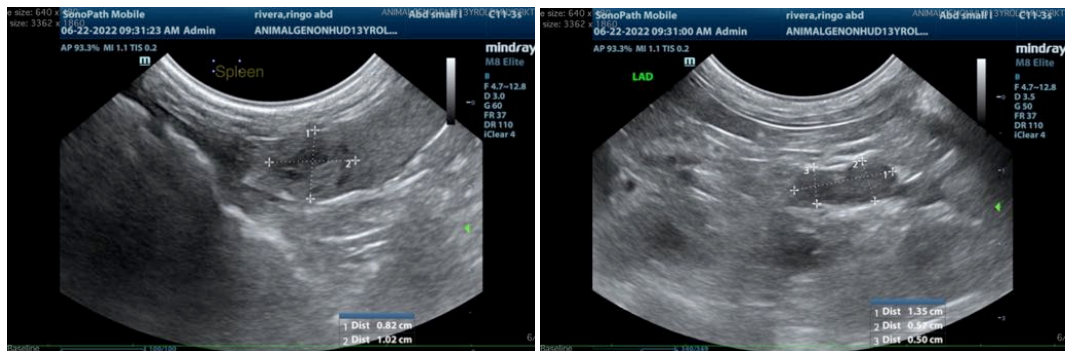
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com**

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