



**PATIENT PRESENTING CLINICAL SIGNS**

Rufus Starr Vomiting, +/- hematuria. Possible abdominal mass/neoplasia  
Abnormal PE/Chem/CBC/UA Results: RBC 5.57, Hct 34.9, Hgb 12.8, Retic Hgb 18.6, WBC 20.25, MPV 13.9, TP 9.5, Alb 4.0, Glob 5.5, TBili 1.8, Amyl 1699, Lipase 2962

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**BREED**

Airdale

Urinary bladder is moderately distended. It has a normal uniform wall thickness (<0.2 cm). Contents include primarily anechoic fluid combined with a moderate to marked amount of both gravity dependent and suspended echogenic non-shadowing debris within the fluid. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

**SEX**

Neutered Male

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

**AGE**

11 Years 5 Months

The right kidney is normal in size (6.54 cm) and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**WEIGHT**

51 Pounds

The left kidney is normal in size (6.8 cm) and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed. A renal cortical cyst is noted.

**Adrenal Glands**

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

The right adrenal gland is normal in size (2.9 cm long x 1.37 cm at the cranial pole and 0.58 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**IMAGING PERFORMED BY**

Jessica Miller

The left adrenal gland is normal in size (1.85 cm long x 0.74 cm at the cranial pole and 0.63 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**Spleen**

**HOSPITAL NAME**

Westwood Regional

The spleen is subjectively large in size with an irregular, scalloped margin caused by the presence of subcapsular anechoic fluid. Parenchyma is mottled and coarse, characterized by the presence of several hypoechoic nodules as well as a 2.5-3.0 cm cavitated, cystic, heterogeneous mass that appears to communicate with the subcapsular fluid. Splenic vasculature appears normal. Hyperechoic enhanced fat is present around the spleen. Pockets of free fluid are noted intermixed within the enhanced mesentery around the splenic lesion.

**REFERRING VET**

Dr. Goldman

**Liver**

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The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

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GB is moderately distended with anechoic bile and gravity dependent echogenic sediment that appears mineral in nature. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.



**PATIENT**

Rufus Starr

**Gastrointestinal**

**SPECIES**

Canine

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

**BREED**

Airdale

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.

**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.

**Pancreas**

**AGE**

11 Years 5 Months

The pancreas is prominent in size and heterogeneous in appearance, and hyperechoic in echogenicity with a hypoechoic, heterogeneous area near the distal portion of the right limb of the pancreas, consistent with possible nodule. Normal curvilinear pattern is not disrupted. Hyperechoic enhanced fat is present around that lesion.

**WEIGHT**

51 Pounds

**Free Abdomen**

There is no apparent lymphadenopathy.

**PRIMARY FINDINGS**

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

- Cavitated, cystic splenic mass that appears to communicate with subcapsular fluid and perisplenic free fluid and enhanced fat – consistent with focal inflammatory change. Differentials include infiltrative neoplasia such as hemangiosarcoma with spread into the subcapsular region. Benign hematoma with subcapsular hemorrhage cannot be ruled out but is considered slightly less likely.

**IMAGING PERFORMED BY**

Jessica Miller

- Acute on chronic pancreatitis

**SECONDARY FINDINGS**

**HOSPITAL NAME**

Westwood Regional

- Age related kidney change – This finding is expected/consistent with age-related mild degenerative disease and should be interpreted clinically in combination with laboratory changes.

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Dr. Goldman

- Urinary bladder sediment – Urine changes are most consistent with cellular debris or crystalluria. This is a moderate to marked change.

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- 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. 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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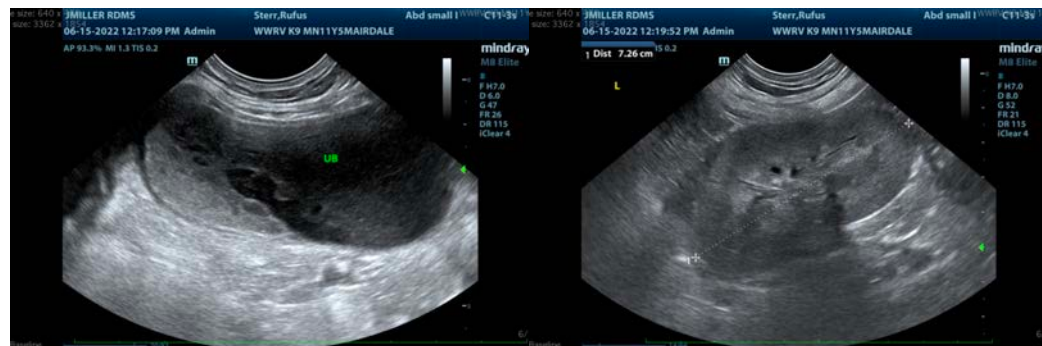
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

If not already evaluated, 3-view thoracic radiographs are recommended for further evaluation of possible metastatic disease. Assessment of coagulation status is recommended with a coagulation panel, platelet count, etc. to rule out a coagulopathy as a cause of the hematuria as well as the subcapsular splenic hemorrhage. Trauma could also potentially cause this hemorrhage, so historical evaluation of possible trauma is warranted.

If coagulation status is appropriate, and there is no history of trauma, recommendations include surgical laparotomy for splenectomy. However, it is likely that the potentially acute on chronic pancreatitis is contributing to the clinical signs of vomiting. Therefore, medical management of pancreatitis with antiemetics, gastroprotectants, appetite stimulants if necessary, pain management as indicated, broad-spectrum antibiotics, fluid support, etc. could be administered initially with monitoring of clinical signs, red blood cell count, splenic changes, etc. with plans to proceed to surgery if the hemorrhage appears to progress.





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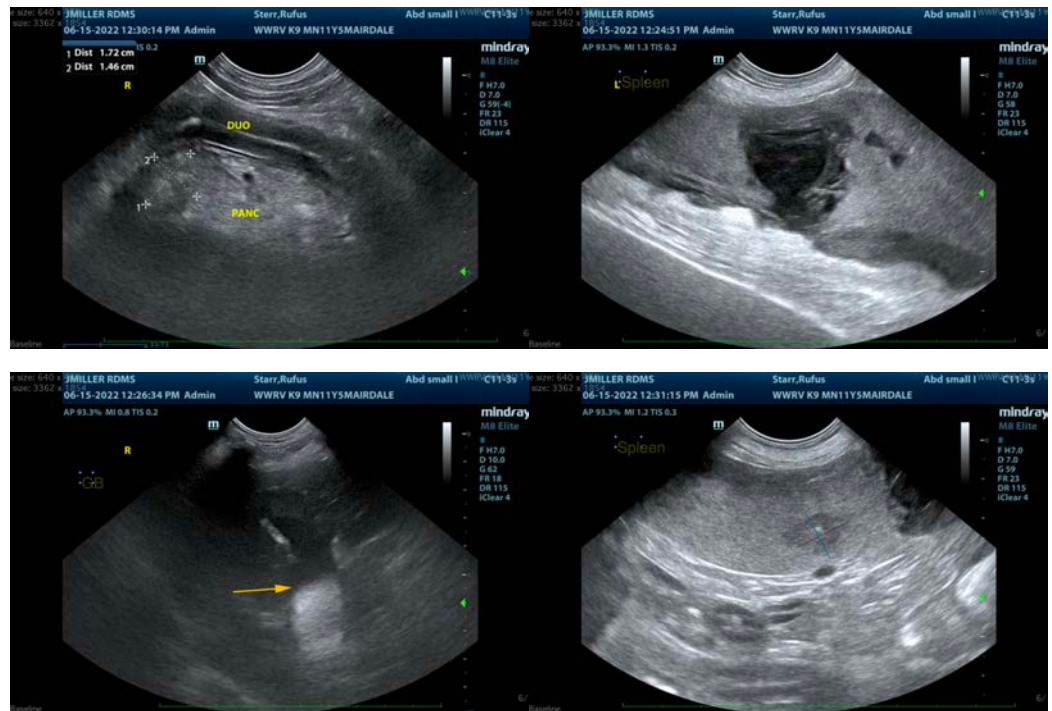
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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