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Clinical Sonography & Telecytology
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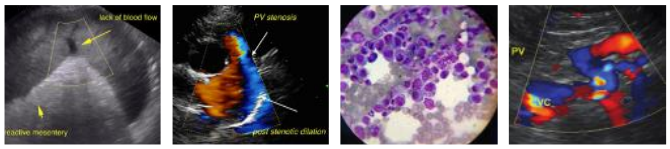



SonoPath.com
1-800-838-4268 info@sonopath.com

**PATIENT**

Molly Seger

**SPECIES**

Canine

**BREED**

Mixed Breed

**SEX**

Spayed Female

**AGE**

12 Years

**WEIGHT**

23 Pounds

**INTERPRETED BY**

Beth Johnson, DVM DACVIM

**IMAGING PERFORMED BY**

Amy Mayhew, LVT

**HOSPITAL NAME**

SVS Imaging Michigan

**REFERRING VET**

North Oakland Visitng Vet

**INVOICE**

17453

**DATE**

9/26/22

## PRESENTING CLINICAL SIGNS

History: Lethargic.

Abnormal PE/Chem/CBC/UA Results: Please see attached labs.

## 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.

Left kidney is normal is size (5.7 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 (5.62 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 (0.65 cm at cranial pole and 0.52 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (0.57 cm thick at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

### *Spleen*

The spleen is subjectively diffusely large in size with a swollen capsular contour created by an approximately 4.0 cm primarily homogeneous iso- to slightly hypoechoic mass, creating a bulge near the mid body to head of the spleen. The mass is surrounded by enhanced hyperechoic fat and a scant amount of anechoic free fluid. The splenic vasculature appears normal.

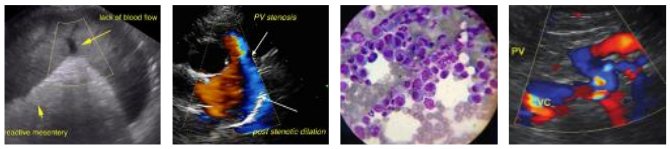
### *Liver*

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. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

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.

### *Gastrointestinal*

The visible stomach wall is mildly thick, measuring 0.9 cm thick with normal intact layering present. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.



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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.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

### *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.

### *Free Abdomen*

There is a scant amount of anechoic free fluid around the spleen. The cranial abdominal lymph nodes are enlarged with swollen irregular capsular contour and loss of normal length to width ratio (rounded in shape). Nodes are hypoechoic with loss of normal parenchymal detail.

## ULTRASONOGRAPHIC FINDINGS

### Primary Findings

- A homogeneous splenic mass, most concerning for infiltrative neoplasia, primarily round cell neoplasia as a top differential. Benign lesions, such as nodular hyperplasia, extramedullary hematopoiesis, etc., can't be ruled out without tissue sampling.
- Aggressive cranial abdominal lymph nodes – most consistent with infiltrative round cell or metastatic neoplasia. A benign aggressive inflammatory response cannot be ruled out without tissue sampling +/- culture.
- Hyperechoic hepatomegaly – This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible, but considered less likely.
- Mild gastric wall thickening with normal intact layering could be a benign normal patient variant or edematous/infiltrative inflammatory change given the concurrent pathology around the stomach. However, infiltrative neoplasia cannot be ruled out.

### Secondary Findings

- 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.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The top differential given the splenic and lymph node changes in this patient is infiltrative neoplasia, primarily round cell neoplasia being the top differential. Recommendations include a fine needle aspirate of the spleen +/- the enlarged lymph nodes if patients coagulation status is appropriate.

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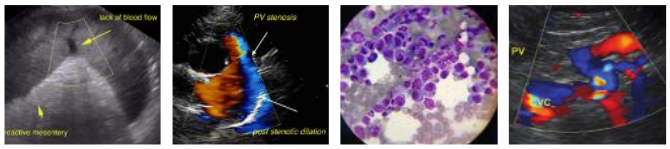

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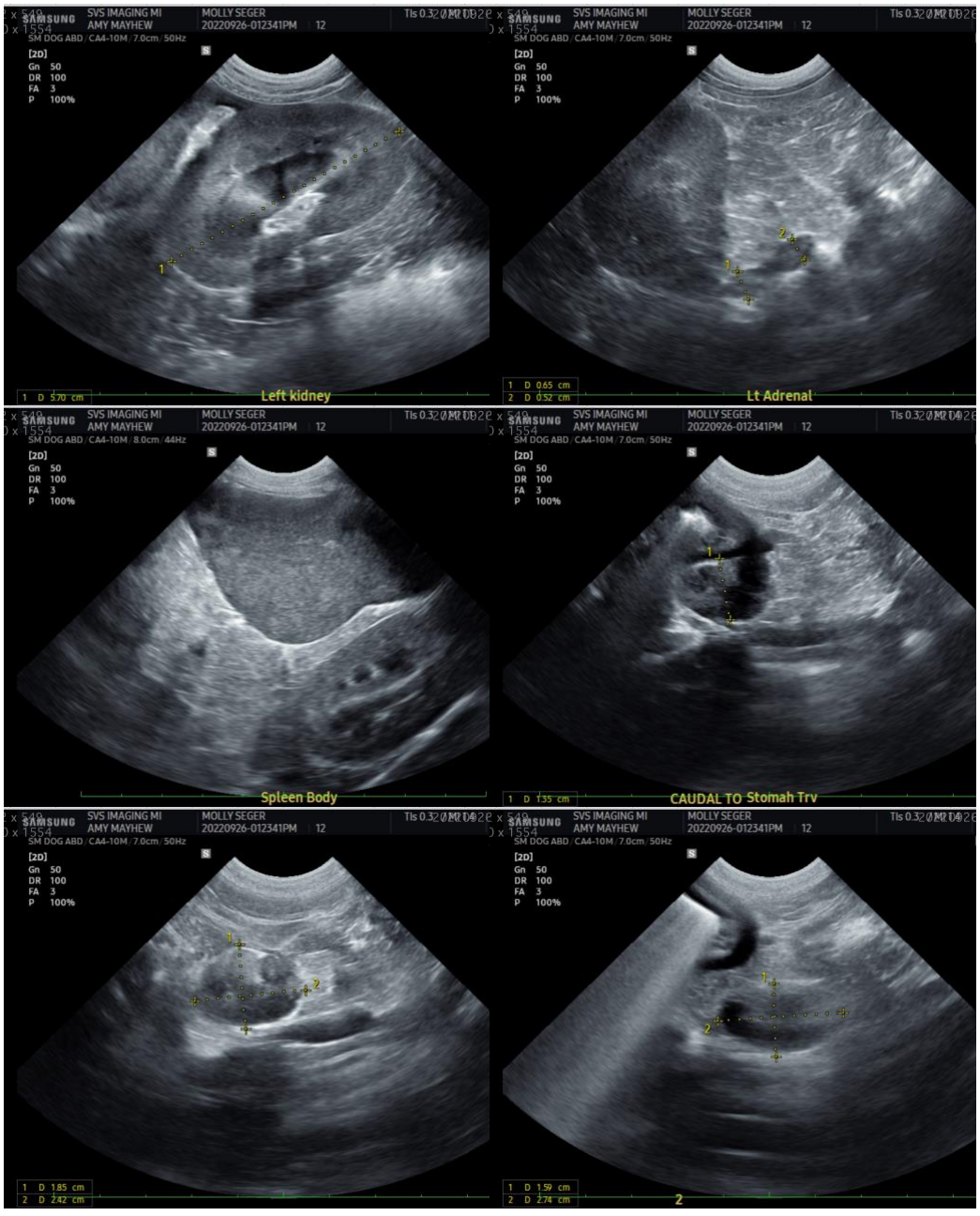
Given the reported neutropenia, if a cytologic diagnosis is not obtained via aspirate, bone marrow could be considered.



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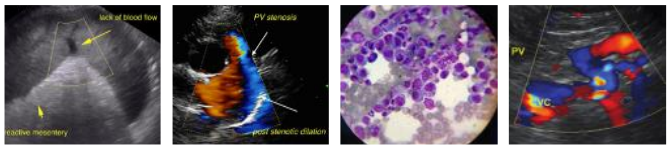

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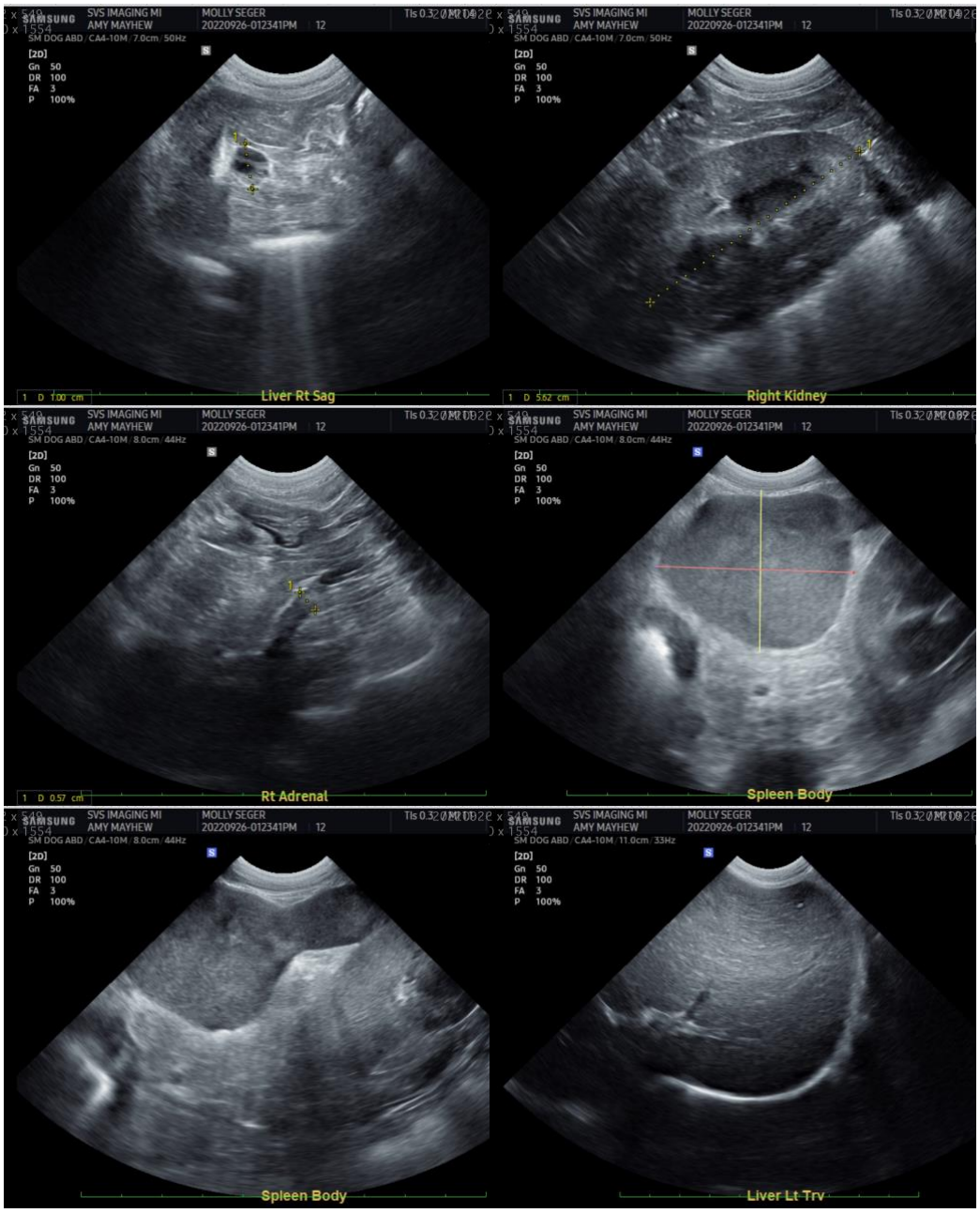

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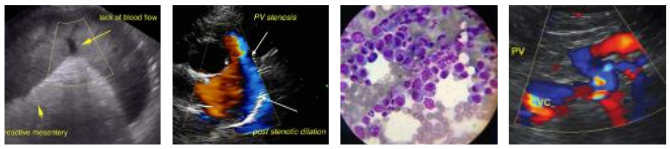

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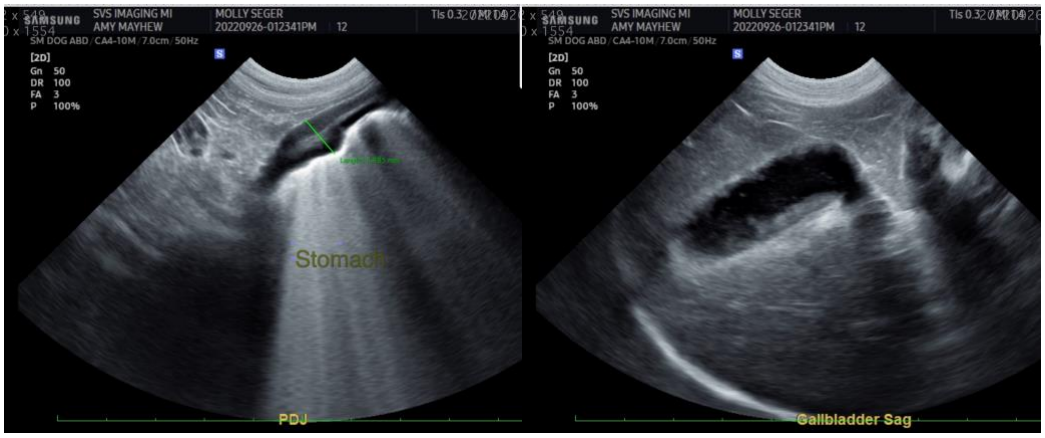


**The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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