



**PATIENT PRESENTING CLINICAL SIGNS**

Sophie Smith Presented to emergency clinic 10 days ago for vomiting diarrhea and melena, on POCUS concern about splenic mass. GI episode has resolved with treatment

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: No abnormalities

**BREED**

Pit Bull x

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is moderately 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.

**SEX**

Spayed Female

The right kidney is normal in 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.

**AGE**

11

The left kidney is normal in size (5.9 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.

**WEIGHT**

24 kg

**Adrenal Glands**

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

The right adrenal gland is normal in size (0.64 cm at the cranial pole and 0.78 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 (0.47 cm at the cranial pole and 0.34 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**IMAGING PERFORMED BY**

Dr. Belan

**Spleen**

Spleen is subjectively large in size with normal smooth margins. Parenchyma is normal in echogenicity with a coarse/heterogenous echotexture. Multifocal well demarcated hyperechoic homogeneous nodules are noted throughout the parenchyma. Splenic vasculature appears normal.

**HOSPITAL NAME**

Properties AC

**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.

**REFERRING VET**

Dr. Kangi

**INVOICE**

44532

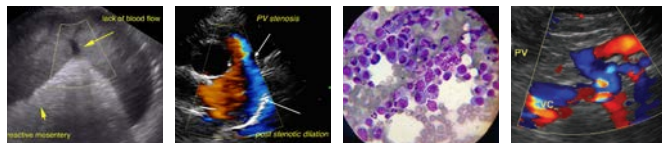
The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

**DATE**

8/9/23

**Gastrointestinal**

The visible stomach wall is normal in thickness 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.



<b>PATIENT</b>	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 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.
Sophie Smith	
<b>SPECIES</b>	The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.
Canine	
<b>BREED</b>	<b>Pancreas</b>
Pit Bull x	The area of the pancreas contains irregular hyperechoic pancreatic remodeling.
<b>SEX</b>	<b>Free Abdomen</b>
Spayed Female	There is no evidence of free peritoneal effusion noted in these images.
<b>AGE</b>	There is no apparent lymphadenopathy noted in these images.
11	There is no evidence of heart base or pericardial pathology noted in these images at this time. If cardiac function evaluation is desired a full echocardiogram is recommended.
<b>WEIGHT</b>	<b>ULTRASONOGRAPHIC FINDINGS</b>
24 kg	<ul style="list-style-type: none"> <li>• <b>Coarse splenomegaly</b> – can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia, as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.</li> <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>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> <li>• <b>Hyperechoic pancreas</b> – This finding is suggestive of pancreatic fibrosis, possibly secondary to chronic pancreatitis. A TLI is recommended to rule out exocrine pancreatic insufficiency (EPI), especially if clinical signs (weight loss, diarrhea, etc.) are present.</li> </ul>
<b>INTERPRETED BY</b>	<b>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</b>
Beth Johnson, DVM DACVIM	The pathology described above is generally benign in appearance. Having said that, given the reported gastrointestinal signs and the resolution of them, if they persist or return, further evaluation could be considered in the form of: <ul style="list-style-type: none"> <li>• A baseline cortisol is recommended. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism.</li> <li>• A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&amp;M GI Laboratory is recommended for further evaluation of GI and pancreatic function.</li> </ul>
<b>IMAGING PERFORMED BY</b>	
Dr. Belan	
<b>HOSPITAL NAME</b>	
Properties AC	
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**PATIENT**

Sophie Smith

- Fecal exam
- A fecal enteropathogen PCR panel to Texas A&M GI Laboratory could be considered for further evaluation of possible infectious disease.

**SPECIES**

Canine

Ultimately, if clinical signs persist and a diagnosis is not reached, further evaluation of the GI tract via upper and lower endoscopy for visualization and biopsies may be warranted.

**BREED**

Pit Bull x

In the meantime, empirical deworming with a 5-day course of Panacur +/- an empirical course of therapy for helicobacter could be considered.

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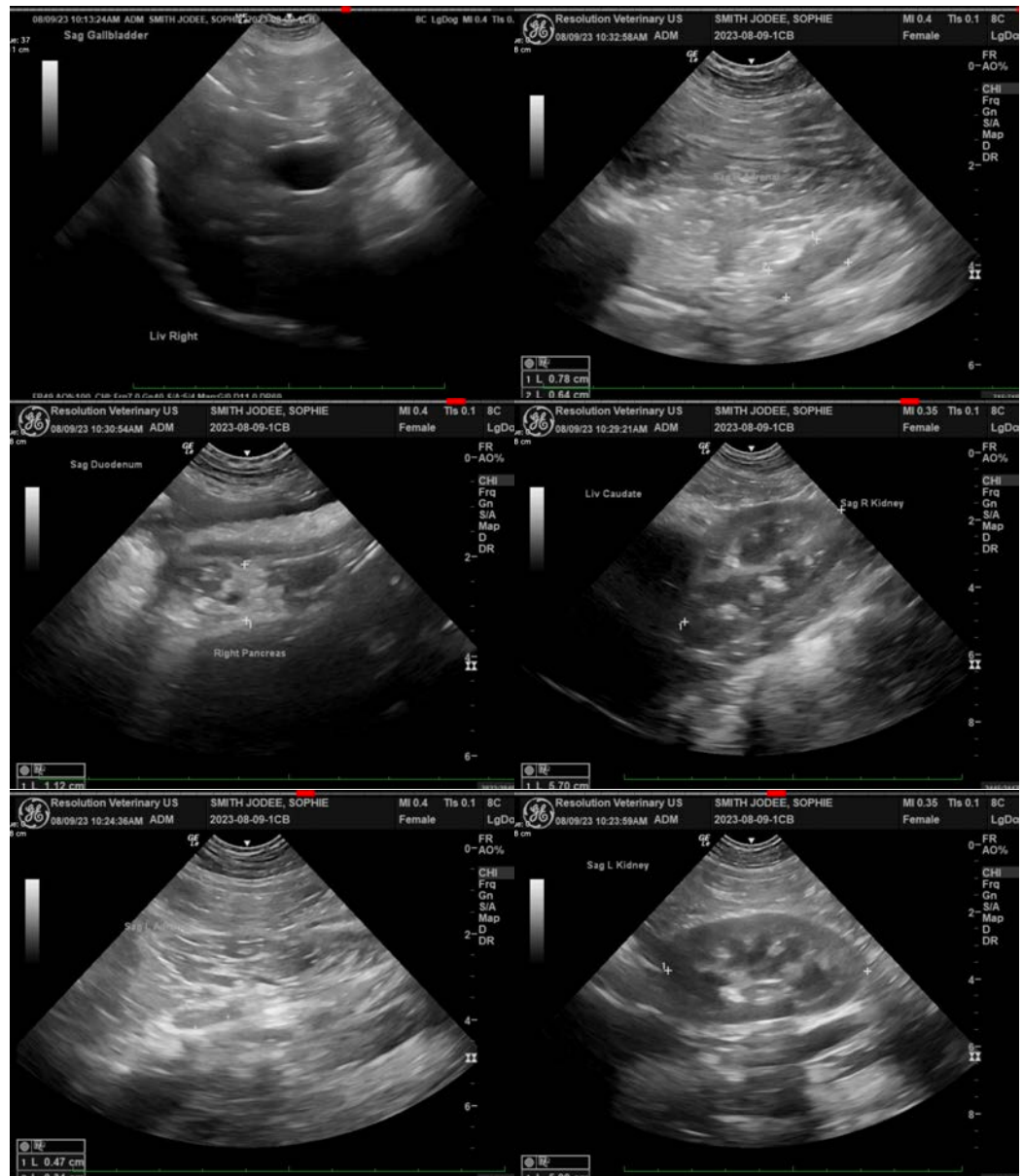
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**PATIENT**

Sophie Smith

**SPECIES**

Canine

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**SEX**

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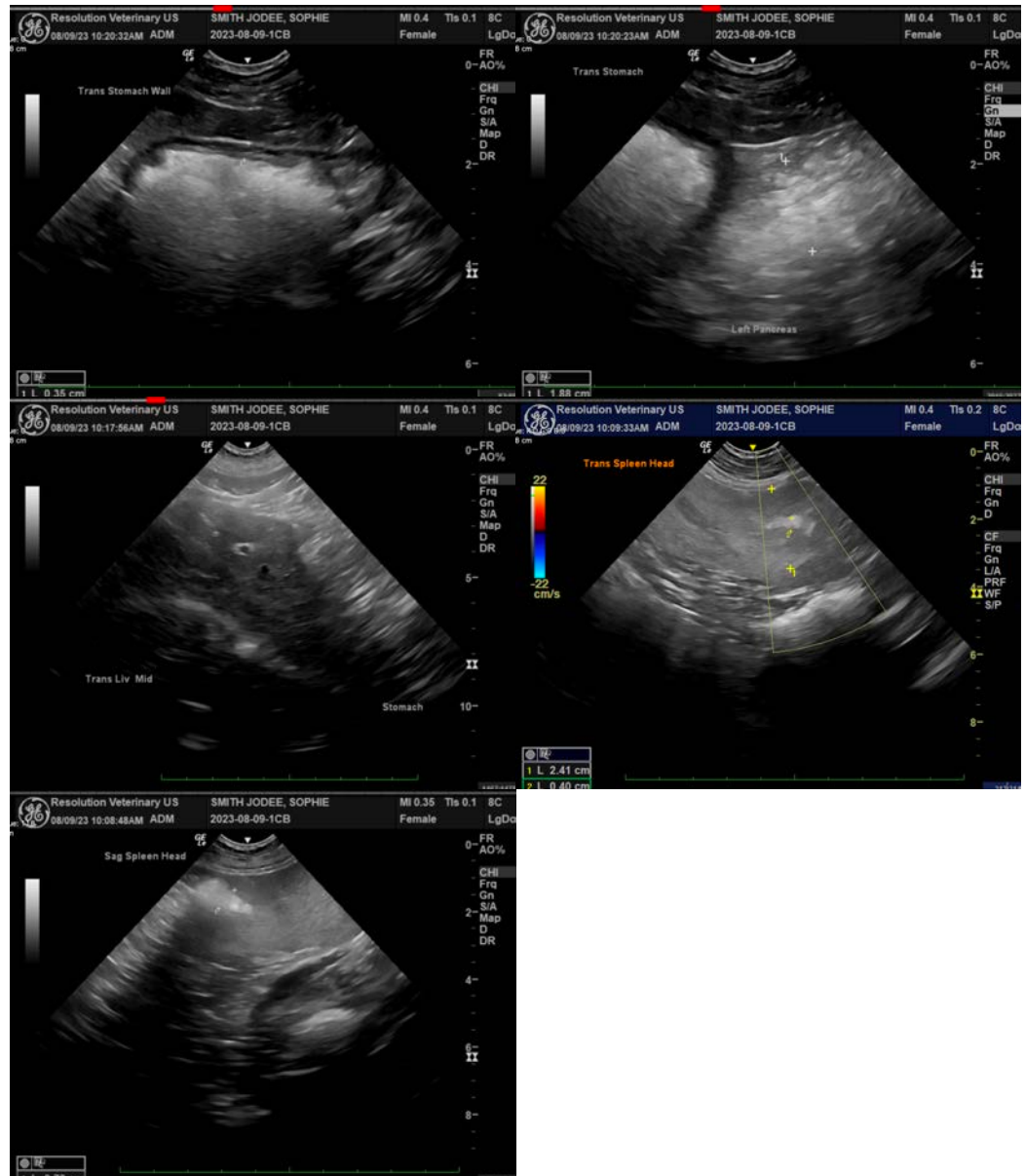
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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**  
info@sonopath.com