



**PATIENT**

Inara Babler 53984A

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

11 years

**WEIGHT**

4.16 kg

**INTERPRETED BY**

Andrea Nicastro,  
DVM, Diplomate  
ACVIM (Small Animal  
Internal Medicine)

**IMAGING  
PERFORMED BY**

Tom McNeill

**HOSPITAL NAME**

SVS Imaging CT

**REFERRING VET**

Madison Vet Spec  
Dr. Maller

**INVOICE**

11812

**DATE**

10.11.22

**PRESENTING CLINICAL SIGNS**

History: Inara has been anorexic and lethargic for the past few days. She did some dry heaving on Saturday, and last ate a small amount of food on Saturday night. Early Sunday morning she vomited some bile. She has not vomited since. Since Saturday night, Inara has not eaten or drank anything and has been severely lethargic. Owner describes her as essentially immobile. She spent all day Sunday/yesterday hiding in the closet. Owner brought her to pcDVM yesterday where they did bloodwork and SQF. When owner got Inara back home, she left her carrier and sat in the same spot without moving until she was brought to the hospital today. Owner does not think there is anything inappropriate that she could have gotten into.

Abnormal PE/Chem/CBC/UA Results: ALT 905, AST 278, T. Bili 1.6, CI 111, Glu 216 WBC 3k, Neu 1.92k

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. A moderate amount of suspended, echogenic debris is observed within the lumen. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The left kidney is normal size (3.96 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The right kidney is normal size (3.79 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

**Adrenal Glands**

The left adrenal gland is normal size (0.43 cm width) with a normal shape and smooth peripheral contours. A 0.19 cm linear hyperechoic focus is observed within the parenchyma. The remaining glandular echogenicity and detail are normal. The phrenicoabdominal vein and surrounding vasculature appear normal.

The right adrenal gland is normal size (0.45 cm width). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature are normal.

**Spleen**

The spleen is mildly enlarged (1.11 cm in width at the level of the hilus) with slightly swollen peripheral contours. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

**Liver**

The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative, or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed.

The gall bladder is moderately distended. The wall is normal to borderline thickened (up to 0.16 cm) and hyperechoic. A small amount of echogenic debris is observed within the lumen. The common bile duct is visible but not overtly dilated (0.21 cm in diameter) at the distal aspect. It can be seen entering the duodenal papilla. There is no obvious evidence of an intraluminal obstruction.

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**Gastrointestinal**

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is mildly fluid-distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The ileocecolic junction and colonic wall are normal. There is no evidence of an obstructive pattern.

**Pancreas**

The pancreas is diffusely visible/prominent with minimal deviation from the normal peripheral contours. The parenchyma is hypoechoic relative to surrounding omental fat. No distinct focal lesions are observed. The pancreatic duct is visible but not overtly dilated (0.13 cm in diameter). Surrounding mesentery is hyperechoic.

**Free Abdomen**

The mesentery in the cranial aspect is hyperechoic. Trace free fluid is observed. A few prominent mesenteric lymph nodes are visualized, the largest measuring 1.34 cm in length. In addition, a few prominent periportal and colic lymph nodes are seen. A 0.35 cm gastric lymph node is also visualized.

**Other**

A 0.57 cm echogenic nodule is observed in the left cranial quadrant, just medial to the cranial pole of the spleen.

**ULTRASONOGRAPHIC FINDINGS****Primary Findings**

- The pancreatic changes are consistent with moderate pancreatitis with adjacent peritonitis.
- The mild splenomegaly could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, splenitis, antigenic stimulation or infiltrative neoplasia (i.e., round cell tumor).
- An obvious cause for the patient's severely elevated ALT is not identified in this study. Considerations include inflammatory disease (i.e., bacterial cholangiohepatitis, lymphoplasmacytic hepatitis), infiltrative neoplasia (less likely), emerging hepatic lipidosis, reactive hepatopathy (less likely), other.

**Secondary Findings**

- Bilateral degenerative renal changes
- The urinary bladder debris could be consistent with cells, crystals, lipid droplets and/or exfoliated material.
- The hyperechoic linear structure within the left adrenal gland is likely a benign incidental age-related change.
- The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given the patient's clinical history and sonographic changes, supportive care for acute pancreatitis is recommended, including IV fluid therapy, gastric protectants, antiemetics, pain med, +/- fresh frozen plasma. Nutritional support is also recommended to help prevent/treat hepatic lipidosis. Also consider



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initiation of broad-spectrum antibiotics (i.e., amoxicillin-clavulanic acid) as empirical treatment for bacterial cholangiohepatitis.

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Serial monitoring of the patient's liver values is recommended. If the liver values do not improve within 3-5 days of initiating therapy, hepatic tissue sampling (i.e., fine-needle aspirate or surgical biopsy) may be necessary to get a definitive diagnosis. If surgical biopsies are pursued, aerobic and anaerobic bile cultures are also recommended.

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Also consider a fine-needle aspirate of the spleen, if clotting status is appropriate.

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Given the likelihood of pancreatitis and hepatic disease, Toxoplasmosis testing (IgM, IgG) may also be warranted.

Given the patient's age, three-view thoracic radiographs are recommended to assess cardiopulmonary status.

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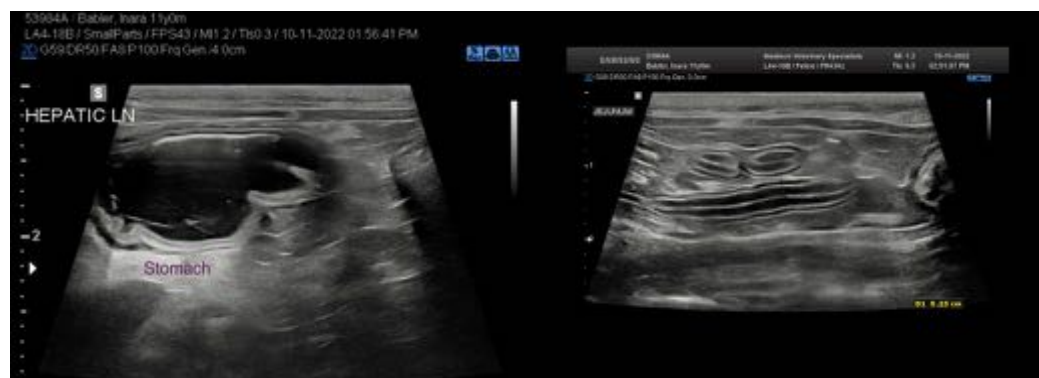
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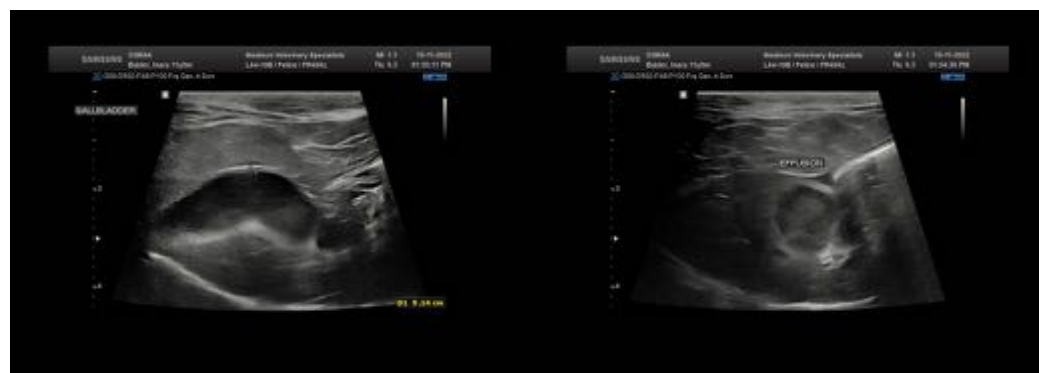


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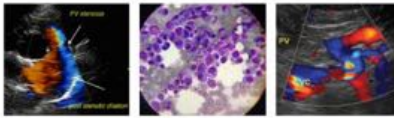
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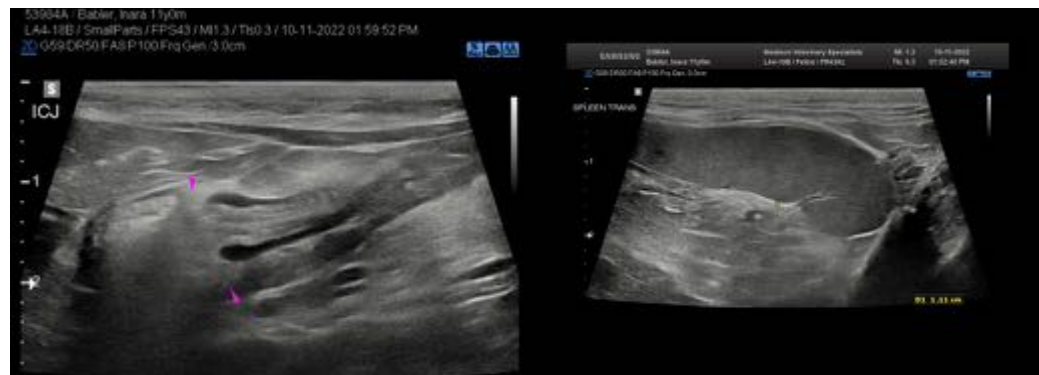
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Andrea Nicastro**, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)  
[info@SonoPath.com](mailto:info@SonoPath.com)