



PATIENT

Echo Saylor

SPECIES

Canine

BREED

Beagle

SEX

Spayed Female

AGE

12 Years 6 Months

WEIGHT

32

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Jessica Green

HOSPITAL NAME

Stanglein Vet Clinic

REFERRING VET

Dr. Erin Rothrock

INVOICE

45438

DATE

2/22/23

PRESENTING CLINICAL SIGNS

P presented 2/20 for decreased appetite and vomiting. She was also shaking overnight and seemed restless. Physical exam largely unremarkable other than some mild TL spinal pain. Current meds Gabapentin and methocarbamol

Abnormal PE/Chem/CBC/UA Results: ALT 126 (H), ALKP 2779 (H), Amylase 1941 (H), Lipase 1336 (H).

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is only mildly distended (empty). Visible contents are anechoic. Urinary bladder wall is unable to be fully assessed for pathology without further distension. No visible masses or cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface. If there are urinary signs and/or concern for urinary bladder pathology, reassessment after complete filling is recommended.

Kidneys are overall normal in size 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 cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. Cortical cysts are noted in both kidneys. The left kidney measures 5.64 cm. The right kidney measures 5.43 cm.

Adrenal Glands

The right adrenal gland is normal in size (2.05 cm long x 0.71 cm at the cranial pole and 0.56 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 (2.08 cm long x 0.68 cm at the cranial pole and 0.70 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

The 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). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Additionally, there are multifocal approximately 1.0 cm discrete hyperechoic nodules throughout the liver, as well as a 1.0 cm cyst. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is mildly overdistended with a moderate amount of non-dependent, mildly aggregated/inspissated sludge. Hypo to anechoic cystic areas are noted between the gallbladder sludge and luminal wall. The wall is otherwise smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion.



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Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

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.

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

Pancreas

The observed pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and irregular in shape with a swollen undulating contour. Enhanced hyperechoic ill-defined surrounding fat is noted.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

PRIMARY FINDINGS

- **Emerging mucocele** – 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. The non-dependent nature of this sludge combined with the cystic areas are suggestive, however, of possible emerging cystic mucosal hyperplasia or early gallbladder mucocele.
- Mild to moderate acute pancreatitis
- **Heterogenous Liver** – 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.
- **Multifocal liver nodules** – Differentials for discrete liver nodules include primarily benign changes such as nodular hyperplasia, fibrosis of an old hematoma, granuloma, myelolipomas etc.; however, while considered less likely, primary hepatic neoplasia, infiltrative round cell neoplasia and metastatic disease can mimic benign lesions and cannot be definitively ruled out.

SECONDARY FINDINGS

- Age related kidney changes with small bilateral cortical cysts

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The causes for this patient's reported pain as well as gastrointestinal signs include suspect mild acute pancreatitis. However, an emerging gallbladder mucocele is also suspected and can cause a similar clinical picture. If not recently evaluated, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.



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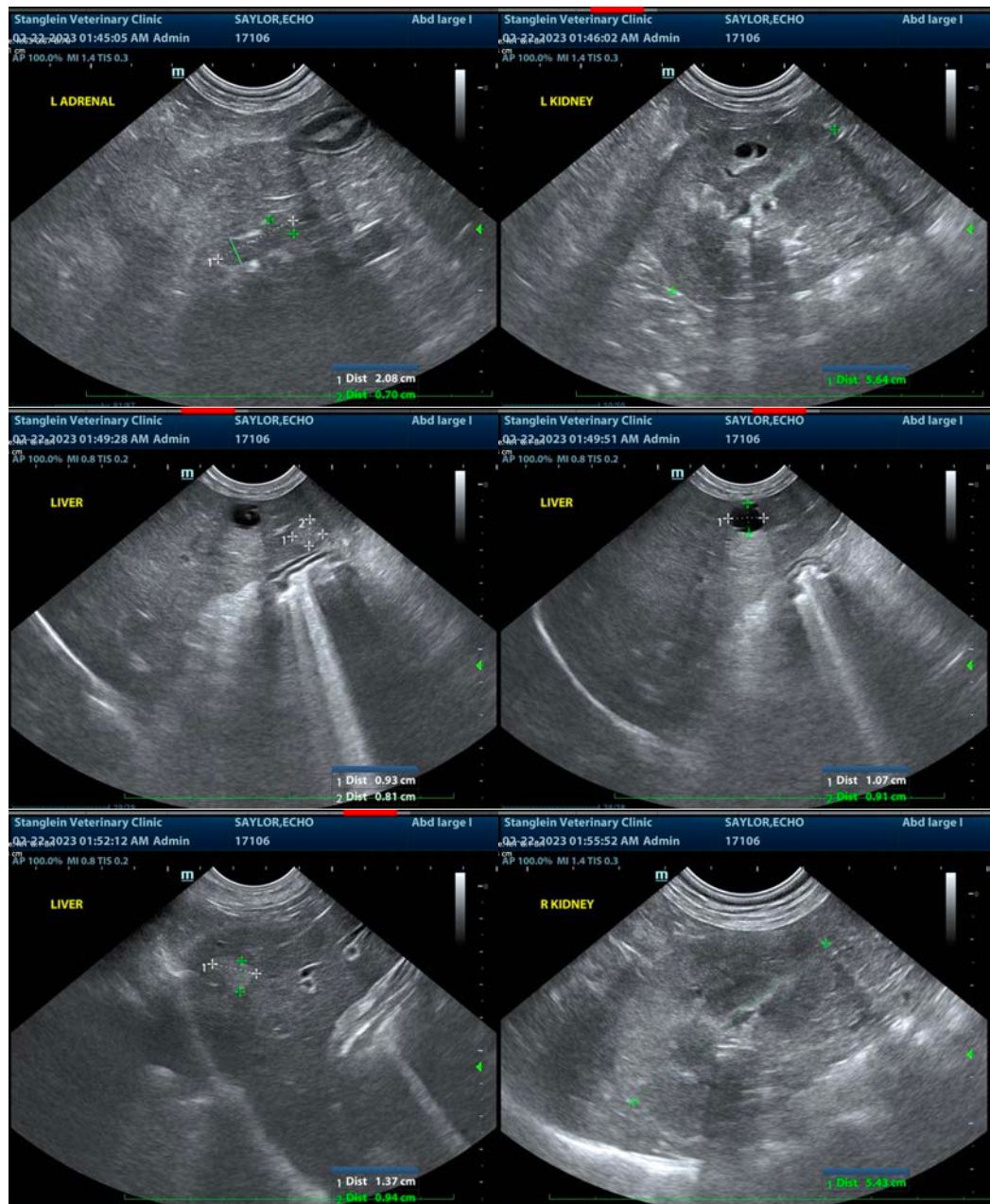
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In the meantime, medical management of acute pancreatitis is recommended with antiemetics, gastroprotectants, appetite stimulants or nutritional support as needed, pain management, broad-spectrum antibiotics, hepatic nutraceuticals including Ursodiol, and fluid therapy. If, however, clinical signs don't improve, and/or certainly if cranial abdominal pain develops and/or liver enzymes progress, further intervention for the suspected emerging mucocele up to and including cholecystectomy may ultimately be required.





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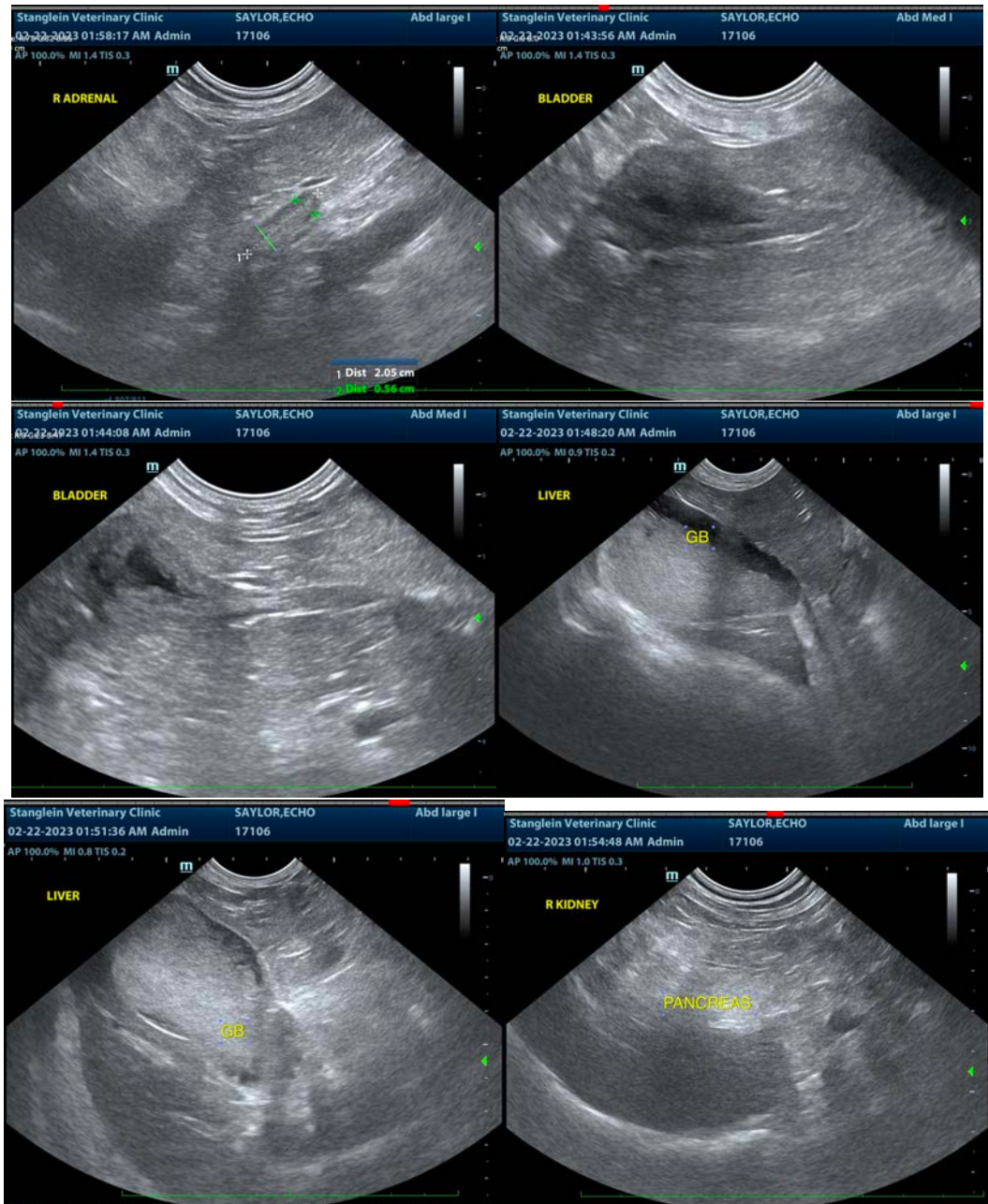
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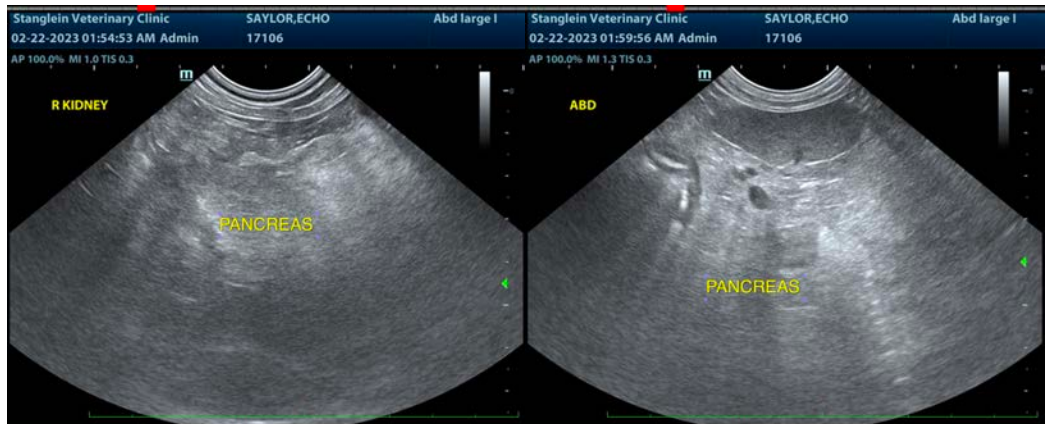
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM, DACVIM
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