



## PATIENT

Buster Mercado

## SPECIES

Canine

## BREED

Mixed

## SEX

Neutered Male

## AGE

14 Years

## WEIGHT

14.2 lbs

## INTERPRETED BY

Beth Johnson, DVM  
DACVIM

## IMAGING PERFORMED BY

Gabriel Ferrer, DVM

## HOSPITAL NAME

Pulse: Pet Ultrasound

## REFERRING VET

Dr. Cruz

## INVOICE

72226

## DATE

1/14/26

## PRESENTING CLINICAL SIGNS

Px presented as a referral for an abdominal ultrasound. Client reported that she had taken Px on December 6th, 2025 to an emergency clinic due to abdominal distention and lethargy. Hx of hepatic disease and Hypothyroidism. Px is currently on Thyroxine, Denamarin, and Ursodiol was recommended by rDVM.

Abnormal PE/Chem/CBC/UA Results: Radiographs and bloodwork attached below for your reference: High WBC High NEU High PLT High PCT High BUN High TP High ALB High GLOB High ALT Low ALKP High TBIL Low Cl

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The 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.

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

Multiple cortical anechoic cysts of various sizes are present in both kidneys. Overall echogenicity is increased (hyperechoic cortex) as the result of acoustic enhancement from the cysts and kidney shape is distorted. The left kidney measures 4.85 cm. The right kidney measures 4.85 cm. Trace pyelectasia is noted bilaterally.

### Adrenal Glands

The right adrenal gland is normal in size (0.60 cm at cranial pole and 0.55 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.46 cm at cranial pole and 0.66 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

### Spleen

The spleen is subjectively normal in size (1.0 cm thick at the hilus) 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

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. In the left mid to caudal liver there is an approximately 1.8 cm in diameter homogeneous, hyperechoic nodule. 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 visible stomach wall is normal in thickness and layering. The lumen is mildly distended with primarily fluid as well as some echogenic non-shadowing luminal contents and gas consistent with normal chyme. There is no evidence of obstruction, foreign material, or infiltrative disease. Pyloric outflow tract appears patent.

The bowel is diffusely mildly thick, with the duodenum measuring 0.67 cm thick and the jejunum measuring 0.51 cm thick. Normal intact layering is observed. The lumen of the small intestine is empty with no evidence of obstruction or foreign material.

The colon is moderately thick, primarily in the distal descending colon, measuring 0.46 cm thick, with normal intact layering visible. The lumen is empty.

## Pancreas

The pancreas that is observed 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 no visible free peritoneal effusion noted in these images.

Mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

## ULTRASONOGRAPHIC 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.
- Liver nodule – Differentials for a discrete hyperechoic liver nodule 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.
- Polycystic kidneys – Cysts may be inherited or acquired and may be a subclinical incidental finding or the result of chronic degenerative kidney disease. This finding should be interpreted in combination with breed (inherited polycystic renal disease is more common in some breeds including, but not limited to, Persian cats, cairn terriers and bull terriers), laboratory findings and clinical signs.
- Diffusely mildly thick small and large bowel – This trends in appearance toward benign as can be seen with parasitic, infectious, dietary related, other benign inflammatory disease, even some normal patient variant, or infiltrative neoplasia, which while considered less likely can't be definitively ruled out.



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- Mildly to moderately reactive mesenteric lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given patient’s reported laboratory changes, testing for Leptospirosis could be considered.

Further evaluation of the hyperglobulinemia could be considered via electrophoresis.

In the meantime, given the bowel changes, a routine fecal/giardia exam is recommended 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.

A fecal enteropathogen PCR panel to Texas A&M GI Laboratory could be considered for further evaluation of possible infectious disease. Contact lab for recommendations on how long to discontinue antibiotics (if indicated) prior to obtaining a stool sample for submission.

Given the liver nodule, while it trends in appearance toward benign, fine needle aspirates could be considered if patient’s coagulation status is appropriate.

Pending results of above, three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

In the meantime, in addition to supportive/symptomatic medical management of clinical signs, empirical hepatic nutraceuticals including Ursodiol could be considered, given the emerging gallbladder mucocele. Having said that, if lethargy and/or certainly decreased appetite, nausea, cranial abdominal pain, etc. persist and/or liver enzyme progress, more aggressive intervention up to and including a possible exploratory laparotomy for liver biopsy and cholecystectomy may be warranted, at which time GI biopsies could be obtained as well.





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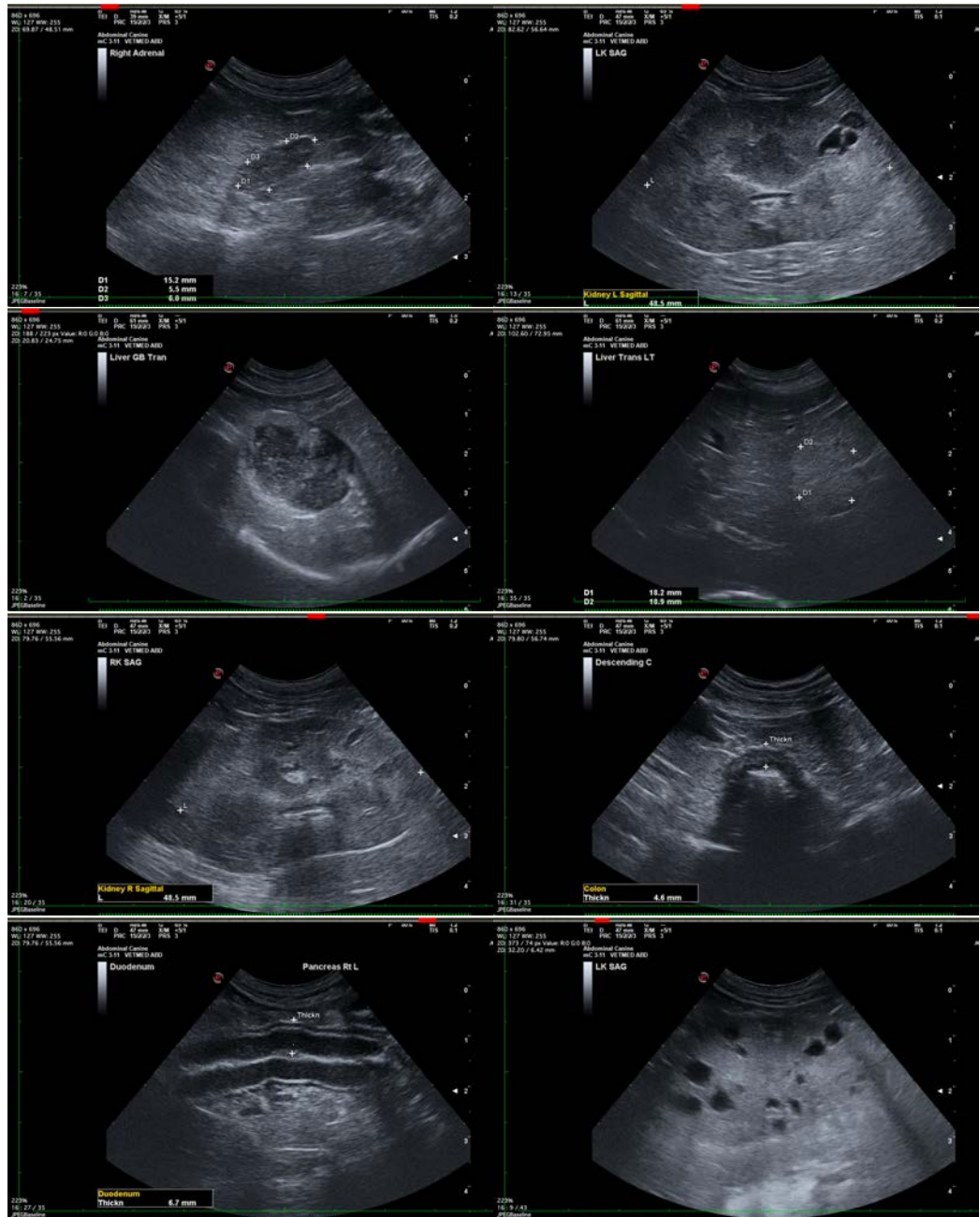
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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