

**DATE PRESENTING CLINICAL SIGNS**

7/19/22 He has had diarrhea since Thursday. May have eaten soft cat food. No known FBs. Seen by RDVM today and started on Metronidazole. Has only gotten once dose. Owner is concerned about dehydration. He is still eating and no vomiting.

PATIENT

Bucky Murray Current Medications: Omeprazole, Metronidazole, Gabapentin, Proviabile, Metoclopramide.
Lab Results: See attached.

SPECIES

Canine

Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

BREED

Great Dane X

SEX

Neutered Male

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.

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

AGE

4/5/12

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. The left kidney measures 8.72 cm. The right kidney measures 8.26 cm.

WEIGHT

182 Pounds

INTERPRETED BY

Beth Johnson, DVM
DACVIM

Adrenal Glands

The right adrenal gland is normal in size (4.38 cm long x 1.18 cm at the cranial pole and 0.93 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

IMAGING PERFORMED BY

Rachel Brilhart RDMS

The left adrenal gland is normal in size (2.86 cm long x 0.78 cm at the cranial pole and 0.96 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

HOSPITAL NAME

Animal Emergency
Hospital

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.

REFERRING VET

Dr. Ruby

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. Several approximately 2.0 cm, round, hypoechoic nodules are noted throughout the parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

INVOICE

39660

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.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. 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. However, some gas is present within the small bowel.

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

Pancreas

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

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

- Multifocal hypoechoic liver nodules – These nodules trend towards being benign with top differentials being nodular hyperplasia. However, while considered less likely, primary hepatic neoplasia or infiltrative round cell neoplasia, even metastatic disease, can mimic benign lesions and cannot be definitively ruled out.

SECONDARY FINDINGS

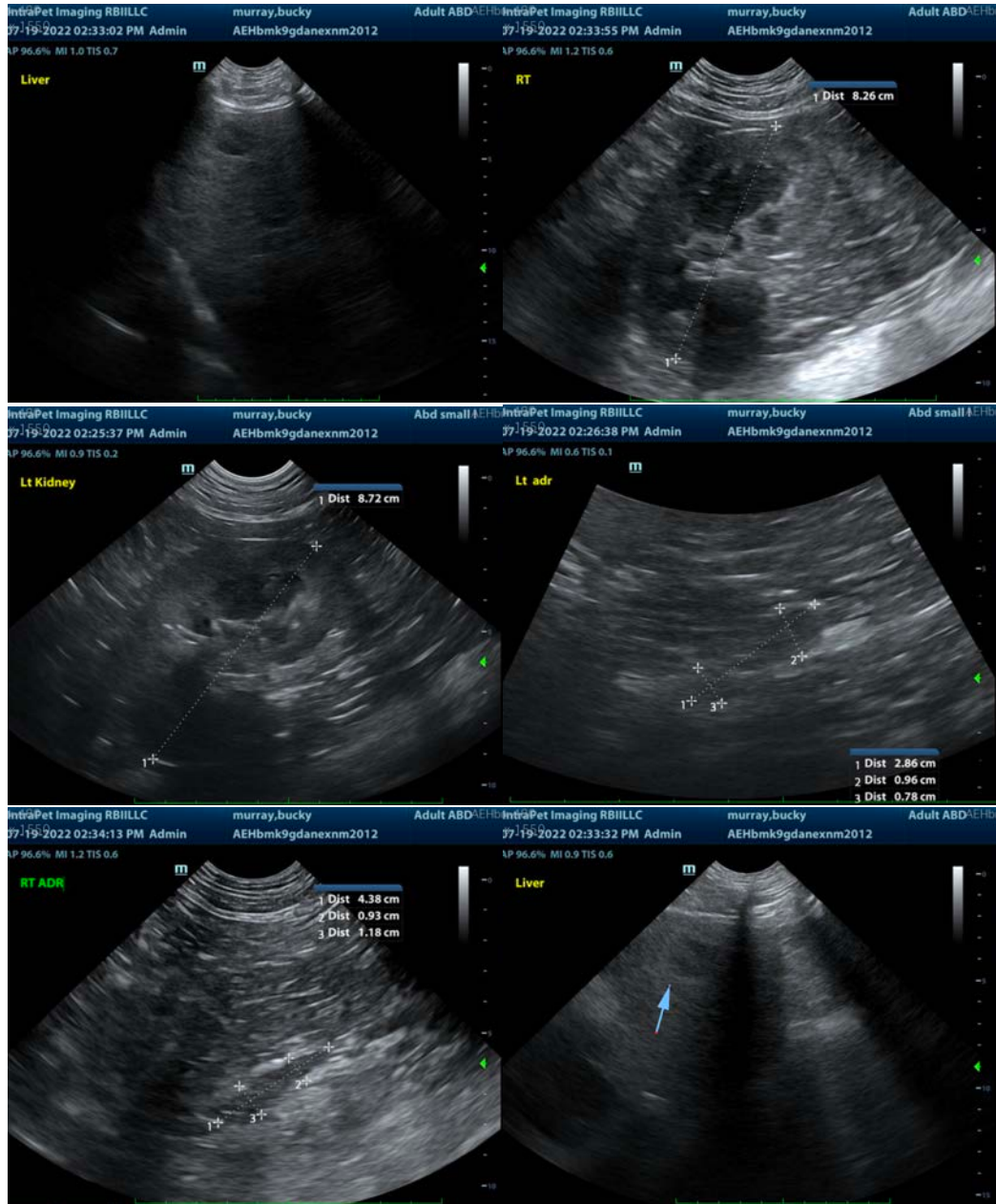
- Age related kidney changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the reported increase in liver enzymes combined with the presence of liver nodules, a fine needle aspirate of the liver could be considered if patient's coagulation status is appropriate. Other recommendations for the increased liver enzymes include:

Recommendations include an "antigen search" for sources of reactive hepatopathy (including testing for Leptospirosis), followed by a course of empirical antibiotics and hepatic nutraceuticals, with monitoring of ALT for improvement. If improvement is not noted and/or enzyme increase progresses, a liver biopsy may be warranted.

In this patient's case, the mild change could be secondary to the reported diarrhea, possibly brought on by dietary indiscretion. Therefore, continued supportive symptomatic therapy of the suspected dietary indiscretion is recommended. The addition of a probiotic as well as transition to a bland, easy to digest diet may help alleviate clinical signs. If liver enzymes do not improve with resolution of diarrhea, and/or diarrhea persists, then the workup described above is recommended in addition to gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory for further evaluation of GI and pancreatic function.



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.

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