



PATIENT

Charles Smith

PRESENTING CLINICAL SIGNS

Newly elevated liver enzymes, severe dental disease. No current meds.
Abnormal PE/Chem/CBC/UA Results: ALP 874, lipase 470. U/A: 1+ protein, 3+ epi cells, 2+ CaOx, USG 1.037.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

BREED

Fox Terrier

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

Neutered Male

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

The right kidney is normal in size (4.84 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

12 Years

The left kidney is normal in size (4.95 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 Pounds

Adrenal Glands

The right adrenal gland is normal in size (1.86 cm long x 0.71 cm at the cranial pole and 0.67 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

INTERPRETED BY

Beth Johnson, DVM
DACVIM

The left adrenal gland is normal in size (2.19 cm long x 0.88 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.

Spleen

IMAGING PERFORMED BY

Kelly Vazquez

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.

HOSPITAL NAME

Millburn Vet Hospital

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. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

REFERRING VET

Dr. Turowsky

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

INVOICE

35681

Gastrointestinal

DATE

2/15/22

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) 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.



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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.

SPECIES

Canine

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

Pancreas

BREED

Fox Terrier

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.

SEX

Neutered Male

Free Abdomen

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

ULTRASONOGRAPHIC FINDINGS

AGE

12 Years

- Mildly irregular, hyperechoic gallbladder wall of unknown clinical significance – This could be an incidental finding, or could be suggestive of cholangitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

WEIGHT

24 Pounds

ALP – Differentials are vast and non-specific. Differentials include, but are not limited to, benign nodular hyperplasia which occurs in 70% of older dogs and often does not result in an abnormal ultrasound, reactive or idiopathic/vacuolar hepatopathy, cholestasis and/or hyperadrenocorticism as well as many chronic non-hepatobiliary diseases such as chronic infections/inflammation from dental disease, IBD, neoplasia, hyperlipidemia, hypothyroidism, chronic pancreatitis, chronic stress, etc.

INTERPRETED BY

Beth Johnson, DVM
DACVIM

There is no ultrasonographic evidence of cholestasis. Adrenocortical testing such as a low dose dexamethasone suppression test could be considered if clinical signs of hyperadrenocorticism are present. Ursodiol could be considered if gallbladder sludge is noted. A fine needle aspirate of the liver could be considered if patient's coagulation status is appropriate. Otherwise, recommendations include addressing any other concurrent disease and monitoring. If values are progressive, recheck imaging is recommended.

IMAGING PERFORMED BY

Kelly Vazquez

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For this patient specifically, given the mild non-specific gallbladder changes, empirical therapy with Ursodiol +/- broad-spectrum antibiotic could be considered with monitoring of ALP for improvement. If it improves, therapy should be continued until it plateaus or normalizes. If there are any clinical signs of hyperadrenocorticism such as polyuria/polydipsia, polyphagia, panting, etc., testing for hyperadrenocorticism in the form of a low-dose Dexamethasone suppression test could be performed, as normal appearing adrenal glands does not rule out hyperadrenocorticism. Given this patient's proteinuria, if the sediment is otherwise active, and there are no signs of infection, a urine protein/creatinine ratio should be assessed to further quantify the proteinuria.

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SPECIES

Canine

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Neutered Male

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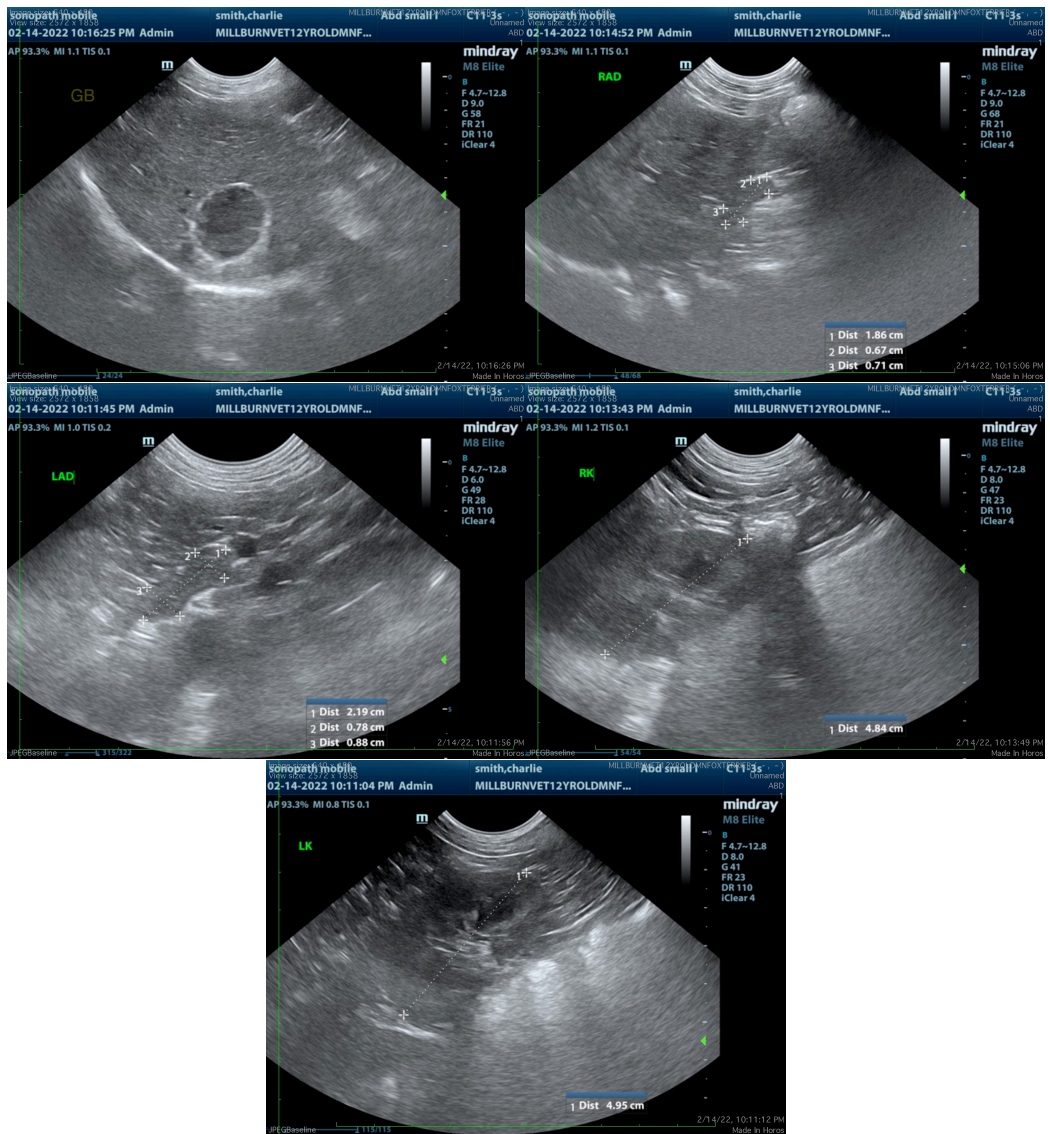
Dr. Turowsky

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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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