

PATIENT PRESENTING CLINICAL SIGNS

Lilly Martin Recently experienced torticollis while chewing her back. Pain sent client to ER for Tx. Bloodwork showed elevated liver enzyme which we are following up on. Dog takes Gabapentin for pain. Was started on Methocarbamol yesterday for muscle spasms. Hx of hemilaminectomy several years ago.

SPECIES Abnormal PE/Chem/CBC/UA Results: ALT 500 (10-125)

Canine **ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Urinary System

BREED 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.

Miniature Dachshund

SEX Right kidney is normal in size (4.3 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.

Spayed Female

AGE Left kidney is normal in size (3.9 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.

15 Years

Adrenal Glands

WEIGHT

12.6 Pounds

Right adrenal gland is normal in size (2.3 cm long x 0.48 cm at the cranial pole and 0.53 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Left adrenal gland is normal in size (2.0 cm long x 0.79 cm at the cranial pole and 0.82 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

INTERPRETED BY

Beth Johnson, DVM
DACVIM

Spleen

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

Valley Vet Service

Liver

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. Michelle Bartus

The gallbladder is moderately distended with anechoic bile and gravity dependent echogenic sediment. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

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PATIENT *Gastrointestinal*

Lilly Martin 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.

SPECIES

Canine 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.

BREED

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

Pancreas

SEX

Spayed Female 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

AGE

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

ULTRASONOGRAPHIC FINDINGS

15 Years

WEIGHT

12.6 Pounds

- Gallbladder debris - 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. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

INTERPRETED BY

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DACVIM

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

HOSPITAL NAME

Valley Vet Service

Alanine Aminotransferase (ALT) - ALT is more liver specific than other enzymes. It is a good indicator of active liver damage (cell membrane disruption, cellular necrosis) if the value is increased by at least 3-4 times normal. Differentials include infectious disease, including Leptospirosis, inflammatory disease (ie. active hepatitis, copper, other), toxic insult as well as infiltrative neoplasia.

ALT levels vary in cases of vascular anomalies such as microvascular dysplasia and portosystemic shunts (PSS), but are often less significantly increased.

REFERRING VET

Dr. Michelle Bartus

Non primary hepatic causes of increased ALT can include a variety of other metabolic conditions including, but not limited to, pancreatitis, gastroenteritis, parasitic disease, dental disease, vacuolar or endocrine hepatopathy from diabetes mellitus or hyperadrenocorticism (steroid-induced), hypoadrenocorticism, certain drugs (e.g. phenobarbital, corticosteroids, azathioprine, etc.), and muscle ALT (more likely if AST and CK concurrently increased).

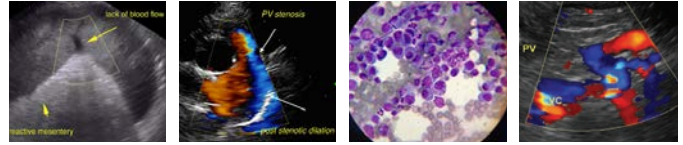
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Recommendations include testing for Leptospirosis as well as evaluating for other non-primary hepatic metabolic conditions as listed above. Empirical therapy could include broad-spectrum antibiotics, Ursodiol, and Denamarin with monitoring of ALT for improvement. If there is no improvement and/or the ALT progresses, a liver biopsy may be indicated.

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PATIENT

Lilly Martin

SPECIES

Canine

BREED

Miniature Dachshund

SEX

Spayed Female

AGE

15 Years

WEIGHT

12.6 Pounds

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REFERRING VET

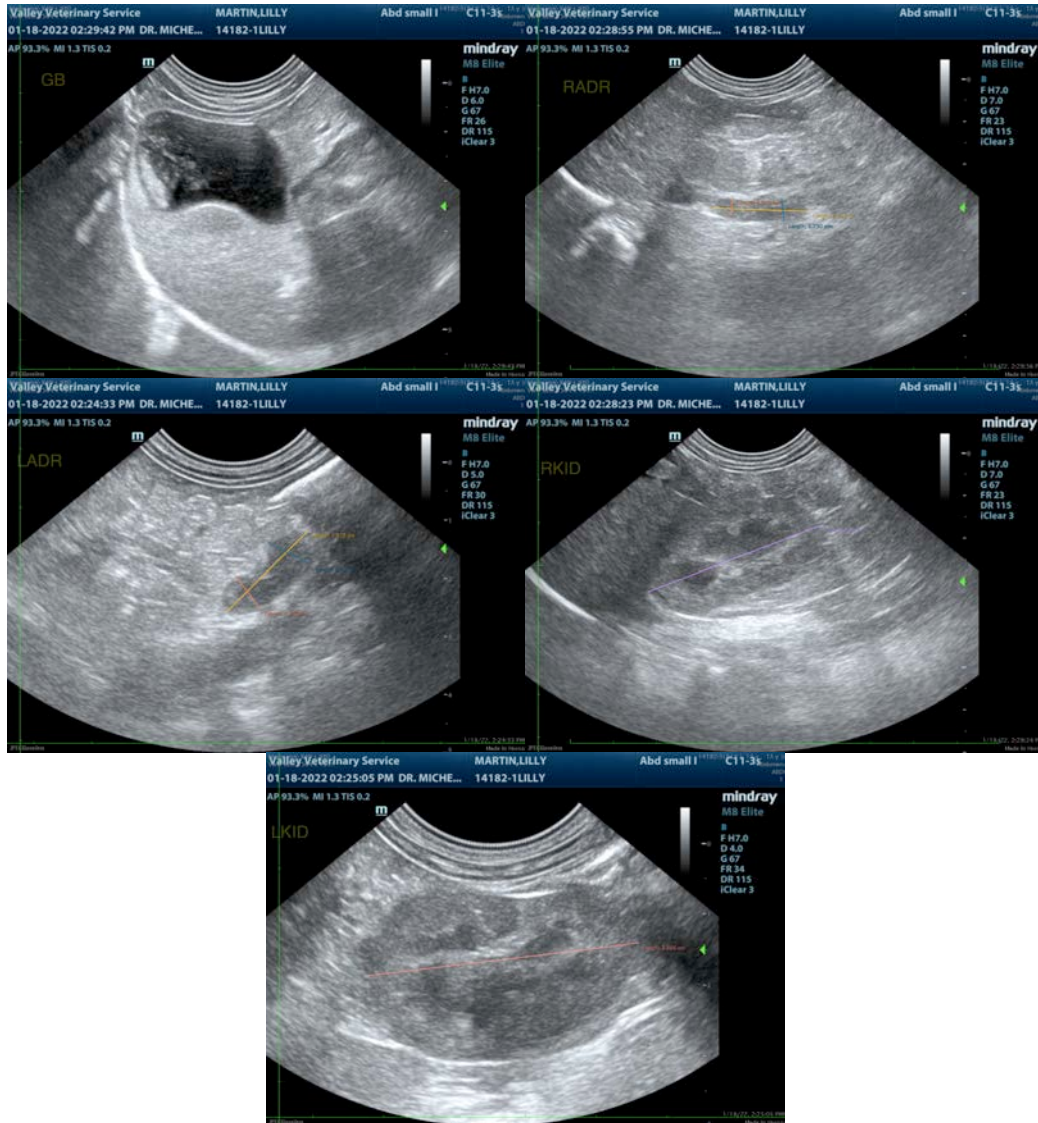
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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