



PATIENT	PRESENTING CLINICAL SIGNS
Mango Wade-Hartz	1 day history of vomiting and very dark urine. Presented for evaluation - no other recent changes at home, no history of abnormal diet, behavior. Responded well to supportive care.
SPECIES	Abnormal PE/Chem/CBC/UA Results: Sodium >180 (144 - 160 mmol/L) Potassium 8.5 (3.5 - 5.8 mmol/L) ALP 707 (23 - 212 U/L) ALT too high to read GGT12 (0 - 11 U/L) Bilirubin - Total 5.2 (0.0 - 0.9 mg/dL) Leptospirosis SNAP negative
Canine	
BREED	ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN
Pit Bull	Urinary System
SEX	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.
Spayed Female	The right kidney is normal in size (6.77 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. A hyperechoic band parallel to the corticomedullary border is present.
AGE	The left kidney is normal in size (7.2 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. A hyperechoic band parallel to the corticomedullary border is present.
9 Years	
WEIGHT	Adrenal Glands
61.2 Pounds	The right adrenal gland is normal in size (2.9 cm long x 1.6 cm at the cranial pole and 0.64 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.
INTERPRETED BY	The left adrenal gland is normal in size (3.3 cm long x 0.59 cm at the cranial pole and 0.58 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.
Beth Johnson, DVM DACVIM	
IMAGING PERFORMED BY	Spleen
Jack Reese	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	Liver
Willow Run VC	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. An iso- to hyperechoic, irregular change is noted in the right medial liver with mild disruption in architecture noted and a slight irregular swelling. This area measures 3.5 cm x 2.5 cm. Visible vasculature and biliary tree appear normal without distension or congestion.
REFERRING VET	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.
Dr. Angela Davies	
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PATIENT	<i>Gastrointestinal</i>
Mango Wade-Hartz	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	
Pit Bull	The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.
SEX	<i>Pancreas</i>
Spayed Female	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.
AGE	<i>Free Abdomen</i>
9 Years	There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.
WEIGHT	PRIMARY FINDINGS
61.2 Pounds	<ul style="list-style-type: none"> The primary ultrasound change is an irregular area in the mid liver – Differentials include low-grade, well differentiated neoplasia versus a hyperplastic nodule, which cannot be differentiated.
INTERPRETED BY	SECONDARY FINDINGS
Beth Johnson, DVM DACVIM	<ul style="list-style-type: none"> Bilateral medullary rim sign - of unknown clinical significance and can be a normal variant. Medullary rim sign(s) should be interpreted in combination with other more specific indications of kidney disease such as isosthenuria, proteinuria, azotemia, etc.
IMAGING PERFORMED BY	<u>INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS</u>
Jack Reese	The focal liver change could be low-grade infiltrative neoplasia such as a well differentiated hepatocellular carcinoma versus other benign disease. However, it is not believed to be contributing to the icterus/cholestasis, given its focal nature. Differentials for the icterus/cholestasis include hemolysis or intrahepatic cholestasis. There is no evidence of post-hepatic obstruction in these images.
HOSPITAL NAME	Recommendations include ruling out hemolysis, and then further assessing causes of diffuse intrahepatic disease, such as Leptospirosis PCR and/or serology (in case of an early false negative with the reported snap result), evaluation for possible toxic insult, etc. Other recommendations include a PLI, as pancreatitis can be present with minimal to no gross ultrasound abnormalities.
Willow Run VC	
REFERRING VET	In the meantime, empirical therapy with broad-spectrum antibiotics, liver protectants such as Denamarin +/- Ursodiol, IV fluids, and supportive management of gastrointestinal signs with antiemetics, gastroprotectants, etc. is recommended with monitoring of liver values for improvement. If medical management/supportive care does not result in improvement, a liver biopsy may ultimately be necessary.
Dr. Angela Davies	
INVOICE	If not already evaluated, clotting times are also recommended. Monitoring of the above described focal liver change is recommended, or, if possible, and if patient's coagulation status is appropriate, a fine needle aspirate of the lesion could be considered at this time.
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PATIENT

Mango Wade-Hartz

SPECIES

Canine

BREED

Pit Bull

SEX

Spayed Female

AGE

9 Years

WEIGHT

61.2 Pounds

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Jack Reese

HOSPITAL NAME

Willow Run VC

REFERRING VET

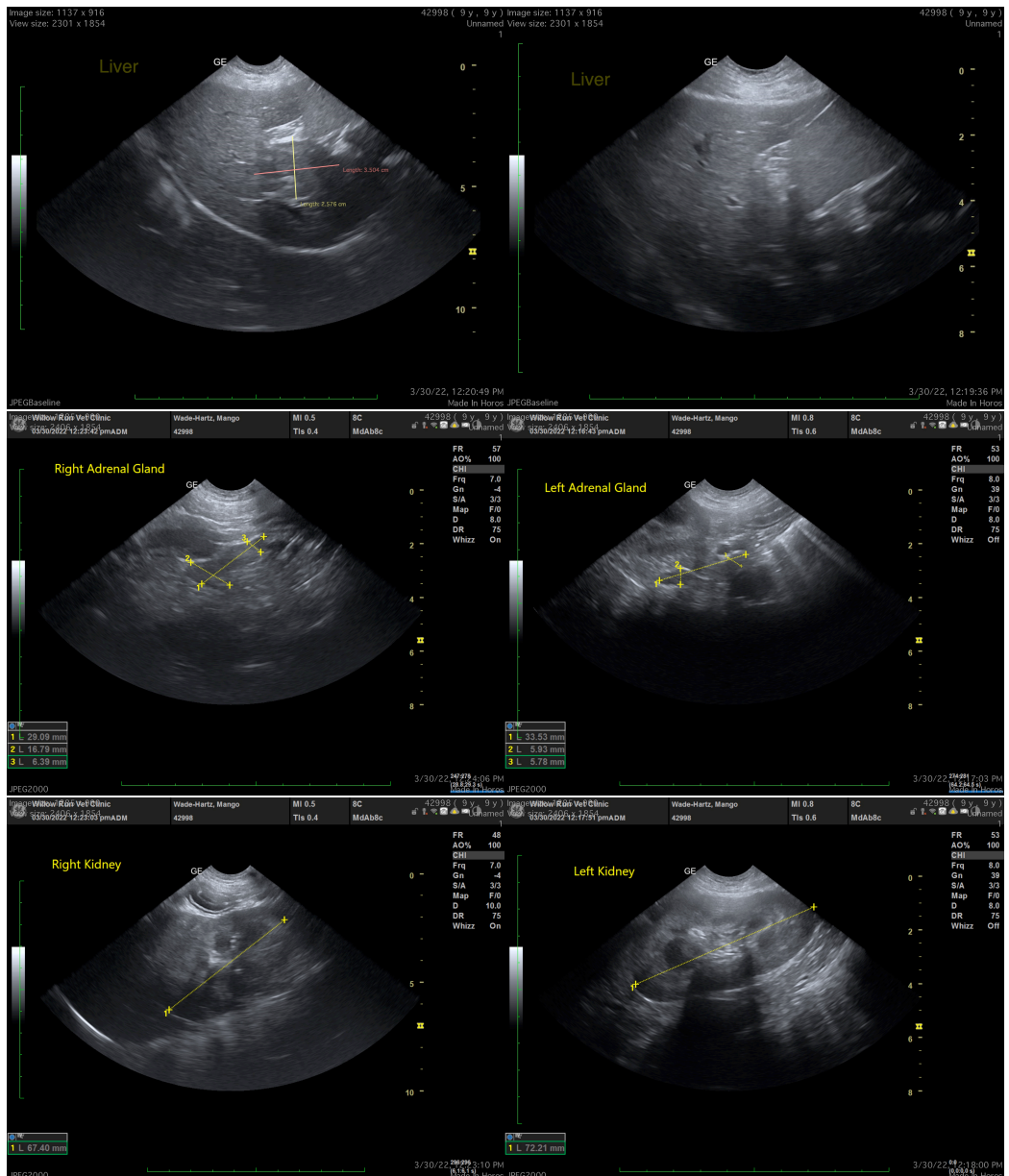
Dr. Angela Davies

INVOICE

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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.

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