

**PATIENT**

Thiery Delorey

**PRESENTING CLINICAL SIGNS**

NSF on exam, complaints of diarrhea meds: cerenia, denosyl  
Abnormal PE/Chem/CBC/UA Results: BUN: 14.3 ALT: 643: ALKP> 2000: GGT: 138: TT4: 8

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

**BREED**

Papillion

The urinary bladder is well distended with anechoic contents. The wall is smooth and regular. No abnormalities are noted with the trigone or proximal urethra, and there is no evidence of cystoliths, polyps or a mass. A trivial amount of free floating sediment is observed.

**SEX**

Neutered male

*Kidneys*

**AGE**

14 years

The **left** kidney measures 5.00 cm. The capsule is smooth, however, the cortex is mildly to moderately hyperechoic and a mild loss of the normal definition of the cortico-medullary junction is present. Mineralizations of the diverticulae and pelvis are present, without evidence of nephroliths. Mild pyelectasia is present, measuring, 3.51 mm. A small subcapsular anechoic structure, consistent with a benign cyst, is observed at the cranial pole. Blood flow is considered normal. The surrounding mesentery is not hyperechoic.

**WEIGHT**

6.6 kg

The **right** kidney measures 5.56 cm. The capsule is smooth, however, the cortex is mildly to moderately hyperechoic and a mild loss of the normal definition of the cortico-medullary junction is present. Mineralizations of the diverticulae and pelvis are present, without evidence of nephroliths or pyelectasia. Blood flow could not be evaluated due to panting artifact. The surrounding mesentery is not hyperechoic.

**INTERPRETED BY**

Lisa Carioto, DVM,  
DVSc, Diplomate  
ACVIM

*Aortic bifurcation/trifurcation*

No abnormalities observed.

**IMAGING PERFORMED BY**

Kelly Reshny, RVT

*Adrenal Glands*

**HOSPITAL NAME**

Governors Road AH

The **left** adrenal gland measures 0.89 cm in diameter. It is moderately enlarged, however, no abnormalities are noted with the gland's overall echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature are unremarkable. The surrounding mesentery is mildly to moderately hyperechoic.

**REFERRING VET**

Dr. Dogar

The **right** adrenal gland measures 0.82 cm. in diameter. It is moderately enlarged, however, no abnormalities are noted with the gland's overall echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature are unremarkable. The phrenico-abdominal vein and The surrounding mesentery is mildly hyperechoic.

**INVOICE**

99397

*Spleen*

**DATE**

4/19/22

The spleen is within normal limits in size, architecture, echotexture, and echogenicity. The capsule is smooth. No abnormalities are observed with its vasculature, i.e. congestion and thrombi are not

<b>PATIENT</b>	identified. Perivascular cuffing, consistent with myelolipomas is observed. The latter is not considered clinically significant.
Thiery Delorey	
<b>SPECIES</b>	<b><i>Liver</i></b>
Canine	High index of suspicion of hepatomegaly, however, size is better characterized at the time of the ultrasound or with radiographs. Its borders are smooth and sharp to slightly rounded. The liver's echotexture is homogeneous, however, it is diffusely hyperechoic, i.e. it is isoechoic to the spleen. Focal lesions are not visualized. No abnormalities are observed with the hepatic vessels visualized.
<b>BREED</b>	
Papillon	The gall bladder is moderately distended with echogenic material (sludge) within the lumen. The sludge is free floating, gravity-dependent, and inspissated, forming nodules, which are adhered to the wall. The gallbladder wall is within normal limits in thickness and echogenicity. There is no evidence of edema surrounding the GB, however the parenchyma surrounding the gallbladder is mildly hyperechoic which may be suggestive of inflammation. The portions of the cystic duct observed is not dilated or tortuous and the remaining biliary tree is within normal limits, i.e. there are no signs of an obstruction.
<b>SEX</b>	
Neutered male	
<b>AGE</b>	<b><i>Gastrointestinal</i></b>
14 years	A large amount of gas is present in the lumen of the stomach. The gastric wall is within normal limits in thickness and the wall layers are well defined. No obvious abnormalities are observed with its peristalsis.
<b>WEIGHT</b>	
6.6 kg	The small intestinal wall thickness, including the duodenum (0.42 cm), is within normal limits and the definition of the wall layers is preserved. Abnormally dilated loops of bowel are not observed.
<b>INTERPRETED BY</b>	The colonic wall is not thickened and mural detail is considered normal.
Lisa Carioto, DVM, DVSc, Diplomate ACVIM	There are no obvious signs of a mass, foreign body, infiltrative disease or an obstruction in the gastrointestinal tract.
<b>IMAGING PERFORMED BY</b>	<b><i>Pancreas</i></b>
Kelly Reshny, RVT	Certain regions of both the left and right limbs are mildly hypoechoic. Pinpoint and very small punctate hyperechoic foci are dispersed haphazardly throughout the parenchyma. The surrounding mesentery is mildly hyperechoic.
<b>HOSPITAL NAME</b>	
Governors Road AH	<b><i>Other</i></b>
<b>REFERRING VET</b>	<b>Lymph nodes</b> No abnormalities are observed
Dr. Dogar	<b>Abdominal effusion</b> is not visualized.
<b>INVOICE</b>	<b>ULTRASONOGRAPHIC FINDINGS</b>
99397	A mild, smoldering, active pancreatitis cannot be excluded based on the hypoechoic regions of the pancreas and mildly hyperechoic mesentery. The multiple hyperechoic foci dispersed throughout the parenchyma are suggestive of fibrosis, which may occur secondary to age, ischemia, and previous episodes of pancreatitis.
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<b>PATIENT</b>	Bilateral adrenomegaly are suggestive of adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism, however, stress (chronic illness) cannot be excluded. There is no evidence of neoplasia.
Thiery Delorey	
<b>SPECIES</b>	The mild hyperechogenicity of the liver is suggestive of a vacuolar hepatopathy. Differential diagnoses include hyperadrenocorticism or stress (chronic illness). Cholestasis and cholangitis/cholangiohepatitis, are also possible based on the appearance of the gall bladder. Hepatitis is considered less likely.
Canine	
<b>BREED</b>	The presence of sludge in the gallbladder (GB) is often clinically insignificant, however, some dogs may show clinical signs of gastroesophageal reflux disease (GERD), therefore, obtaining a history regarding signs of GERD from the client is suggested. Treatment with ursodeoxycholic acid may be required depending on the patient's history. Cholecystitis cannot be excluded based on the hyperechoic regions surrounding the GB.
Papillion	
<b>SEX</b>	Mild degenerative changes of both kidneys are present, which are suggestive of age related degeneration. However, glomerulonephritis may be contributing to the cortical hyperechogenicity. Pyelonephritis cannot be excluded despite the absence of sonographic signs. The very mild pyelectasia noted in the left kidney may occur secondary to polydipsia/polyuria, or pyelonephritis.
Neutered male	
<b>AGE</b>	Gastrointestinal changes are not identified on today's abdominal ultrasound to explain the cause of the diarrhea, however, other sonographic changes may be causing or contributing to it. Furthermore, the absence of sonographic changes does not exclude underlying disease, such as inflammatory bowel disease.
14 years	
<b>WEIGHT</b>	
6.6 kg	
<b>INTERPRETED BY</b>	<b><u>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</u></b>
Lisa Carioto, DVM, DVSc, Diplomate ACVIM	Evaluation of Thiery's history for pu/pd is recommended, as well as for signs of GERD.
<b>IMAGING PERFORMED BY</b>	As mentioned above, some of the renal changes observed are considered age related, however, glomerulonephritis or interstitial nephritis due to Cushing's disease cannot be excluded. Therefore, an ACTH stimulation test or low-dose dexamethasone suppression test is recommended, in addition to a urinalysis and urine culture and sensitivity. If the latter is negative, a urine protein: creatinine ratio should be performed.
Kelly Reshny, RVT	
<b>HOSPITAL NAME</b>	An arterial blood pressure is also recommended to rule out hypertension.
Governors Road AH	A serum cobalamin, folate, and spec fPL are recommended to evaluate for pancreatitis and assess for underlying maldigestion and malabsorption disease, as well as dysbiosis.
<b>REFERRING VET</b>	Some dogs with hyperadrenocorticism can experience diarrhea, however, a clay based product, such as Grey Wolf's EnteroAid or a synbiotic, may help control the consistency of his stools pending the results of the above tests.
Dr. Dogar	
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**PATIENT**

Thiery Delorey

**SPECIES**

Canine

**BREED**

Papillion

**SEX**

Neutered male

**AGE**

14 years

**WEIGHT**

6.6 kg

**INTERPRETED BY**

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DVSc, Diplomate  
ACVIM

**IMAGING  
PERFORMED BY**

Kelly Reshny, RVT

**HOSPITAL NAME**

Governors Road AH

**REFERRING VET**

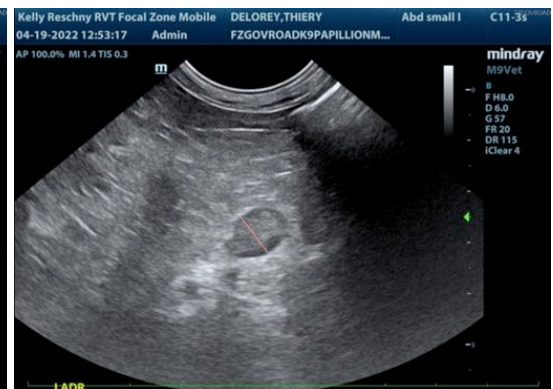
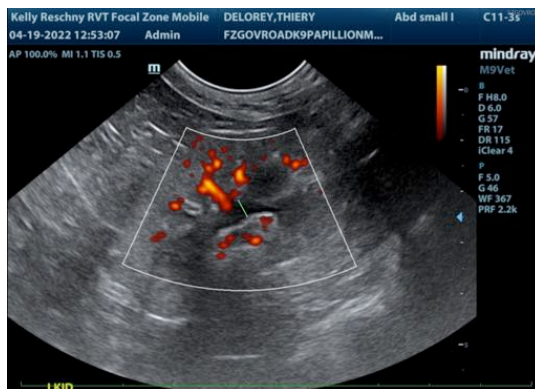
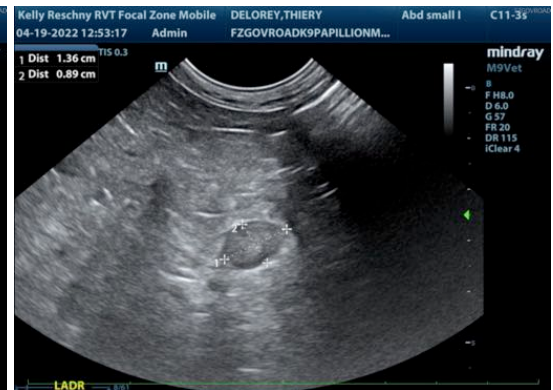
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**AGE**

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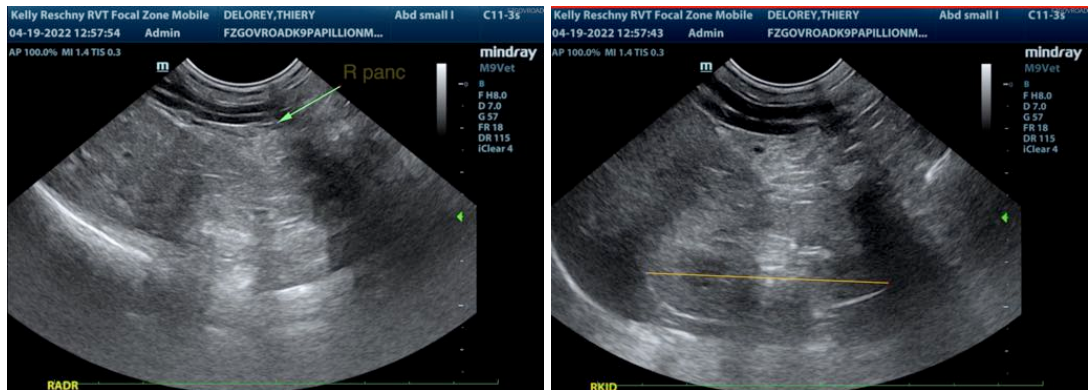
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Lisa Carioto, DVM, DVSc, Diplomate ACVIM

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