



PATIENT

Lulu Mckee

PRESENTING CLINICAL SIGNS

History: Cushing screen
Abnormal PE/Chem/CBC/UA Results: LDDST positive for Cushing's

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

BREED

Chihuahua Cross

The urinary bladder is under filled; it is difficult to assess the thickness of the bladder wall. However, it appears mildly irregular at the level of the apex. A urinary tract infection cannot be excluded. There is no evidence of sediment, cystoliths, polyps or a mass. Complete evaluation of the trigone and proximal urethra was not possible, yet no obvious abnormalities are observed.

SEX

Spayed Female

The left kidney is within normal limits in size for the patient's weight (4.15 cm). The capsule is smooth. Its overall architecture, including the definition of the cortico-medullary junction, are preserved. Very small, punctate, mineralizations of the diverticulae are present; there are no signs of nephroliths or pyelectasia. The surrounding mesentery is hyperechoic.

AGE

9 years

The right kidney is within normal limits in size for the patient's weight (4.22 cm). The capsule is smooth. Its overall architecture, including the definition of the cortico-medullary junction, are preserved. There are no signs of nephroliths or pyelectasia. The surrounding mesentery is hyperechoic.

WEIGHT

13.5 lbs

Blood flow to both kidneys is subjectively increased.

Adrenal Glands

INTERPRETED BY

Lisa Carioto, DVM,
DVSc, Diplomate
ACVIM

The cranial pole of the left gland is 0.49 cm, caudal pole 0.42 cm and it is 2.09 cm in length. A mildly irregular nodule at the level of the caudal pole is evident. An obvious mass and abnormalities with the echogenicity or echotexture are not identified. The rounded nodular effect may be due to the development of a benign adenoma. There are no signs of metastases or thrombi in the phrenicoabdominal veins or the surrounding vasculature of either gland.

IMAGING PERFORMED BY

Dr. Rodriguez

On the still image provided, the right adrenal gland shows a well circumscribed mass effect measuring 1.01 cm at the cranial pole, 0.42 cm at the caudal pole and a length of 1.83 cm. The mass effect is relatively homogenous. The phrenicoabdominal vein and surrounding vasculature do not show any abnormalities.

HOSPITAL NAME

Foxfield VS

Please note, an in-depth evaluation of the left and right adrenal glands was not possible in the cine loops provided due to the gas in the surrounding GI tract.

REFERRING VET

Dr. Rodriguez

Spleen

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 identified.

INVOICE

97903

DATE

3/29/22



PATIENT	Liver
Lulu Mckee	Subjectively, the liver appears enlarged with rounded borders. It is diffusely hyperechoic. The hepatomegaly and diffuse hyperechogenicity of the liver are suggestive of a vacuolar hepatopathy. Cholestasis may also be present. The liver is isoechoic to the spleen and hyperechoic to the right kidney. Other differential diagnoses such as cholangitis or hepatitis are considered unlikely. There are no obvious signs of neoplasia. No abnormalities are observed with the hepatic vessels.
SPECIES	
Canine	
BREED	
Chihuahua Cross	The gall bladder wall appears to be within normal limits in thickness and echogenicity. There is no evidence of echogenic material (sludge) within the GB or edema surrounding it. The cystic and common bile ducts are not dilated or tortuous.
SEX	Gastrointestinal
Spayed Female	The gastric wall and pylorus are normal in thickness. A large amount of gas is present in the stomach. There is no loss of definition of the normal architecture of the layers of the stomach wall. No obvious abnormalities are observed with its peristalsis.
AGE	
9 years	The small intestinal wall thickness is within normal limits and there is no evidence of dilation. The definition of the wall layers is preserved. The colonic wall is not thickened and mural detail is considered normal. There are no obvious signs of a mass, foreign body, infiltrative disease or an obstruction.
WEIGHT	
13.5 lbs	
INTERPRETED BY	Pancreas
Lisa Carioto, DVM, DVSc, Diplomate ACVIM	Within normal limits regarding echogenicity and echotexture. There is no evidence of hyperechogenicity of the mesenteric fat; active pancreatitis is not suspected.
IMAGING PERFORMED BY	Other
Dr. Rodriguez	Lymph nodes: No abnormalities are observed. Abdominal effusion is not visualized.
HOSPITAL NAME	ULTRASONOGRAPHIC FINDINGS
Foxfield VS	<ul style="list-style-type: none"> Bilateral nodules observed on both the left and right adrenal glands, as well as a mass effect of the cranial pole of the right gland. Differential diagnoses include adenomas, which are most likely functional, based on the results of the low-dose dexamethasone suppression test. There are no obvious signs of neoplasia in the surrounding vasculature. A re-evaluation of the adrenal glands is recommended approximately 3 months following treatment to assess the larger mass effect on the right gland. The renal changes may be due to glomerulonephritis associated with hyperadrenocorticism. However, pyelonephritis cannot be excluded despite the absence of sonographic signs. Renal blood flow of the kidneys may be mildly increased, which may be suggestive of hypertension. A systemic arterial blood pressure is recommended. Age related changes are also observed with the kidneys.
REFERRING VET	
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PATIENT

Lulu Mckee

- Diffuse hyperechogenicity of the liver is highly suggestive of a vacuolar hepatopathy, +/- cholestasis, which is most consistent with hyperadrenocorticism.

SPECIES

Canine

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Although some of the changes observed with the kidneys may be age related, there is a high index of suspicion for glomerulonephritis due to Cushing's disease. Pyelonephritis cannot be excluded based on the bilateral hyperechogenicity of the surrounding mesentery, therefore a urine culture and sensitivity is recommended. If the latter is negative, a protein: creatinine ratio is suggested.

BREED

Chihuahua Cross

An arterial blood pressure is recommended to rule out hypertension associated with hyperadrenocorticism.

SEX

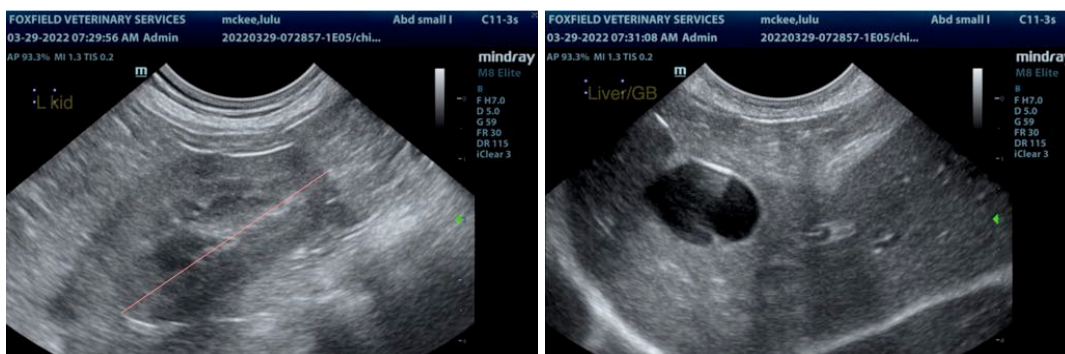
Spayed Female

AGE

9 years

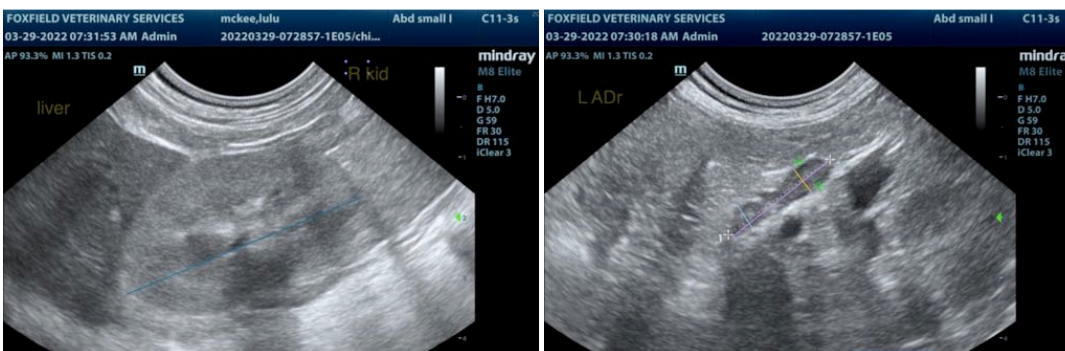
WEIGHT

13.5 lbs



INTERPRETED BY

Lisa Carioto, DVM, DVSc, Diplomate ACVIM

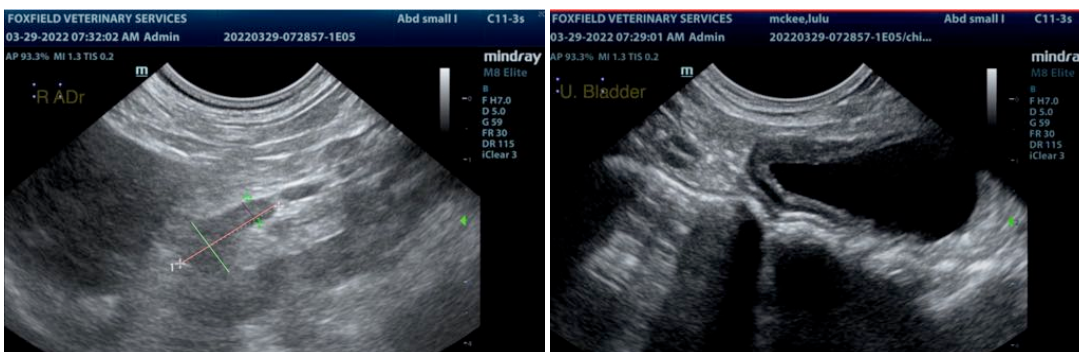


IMAGING PERFORMED BY

Dr. Rodriguez

HOSPITAL NAME

Foxfield VS



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Chihuahua Cross

SEX

Spayed Female

AGE

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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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