



**PATIENT**

Charlie Shepard

**SPECIES**

Canine

**BREED**

Border Terrier

**SEX**

Spayed Female

**AGE**

9 years

**WEIGHT**

11 kg

**INTERPRETED BY**

Lisa Carioto, DVM,  
DVSc, Diplomate  
ACVIM

**IMAGING PERFORMED BY**

Dr. Callihan Pacific  
Crest Mobile

**HOSPITAL NAME**

Pacific Crest Mobile

**REFERRING VET**

Dr. Sandors/Skagit  
Animal Clinic

**INVOICE**

30394

**DATE**

5/13/22

**PRESENTING CLINICAL SIGNS**

Diagnosed with hyperadrenocorticism with LDDS test last week, looking to discern adrenal v pituitary dependent  
Abnormal PE/Chem/CBC/UA Results: PE unremarkable other than pendulous abdomen with ventral truncal alopecia, "thin skinned" appearance -CBC: normal other than slight lymphopenia -Chemistries: elev ALKP 353, otherwise normal panel (mild decrease in Cl and Cr not considered clinically relevant) - UA: USG 1.016, no protein, quiet sediment; Urine cortisol creatinine ratio very elevated at 206 (normal <34) -Urine culture negative

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is adequately 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 sediment, cystoliths, polyps or a mass.

**Kidneys**

The **left** kidney measures 5.43 cm. The capsule is smooth. The cortex is mildly hyperechoic and a mild to moderate loss of the normal definition of the cortico-medullary junction is present. Mineralizations of the diverticulae and pelvis are present, without evidence of nephroliths. Pyelectasia is present (longitudinal view = 2.0 mm; transverse = 2.2 mm). The surrounding mesentery is very mildly hyperechoic.

The **right** kidney measures 5.33 cm. Findings are similar to the left kidney.

**Aortic bifurcation/trifurcation**

No abnormalities observed.

**Adrenal Glands**

The **left** adrenal gland measures 0.58 cm at the cranial pole, 0.46 cm at the caudal pole. No abnormalities are noted with the gland's overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

The **right** adrenal gland measures 0.59 cm at the cranial pole, 0.57 cm at the caudal pole. No abnormalities are noted with the gland's overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

**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.



**PATIENT**

**Liver**

Charlie Shepard

Hepatomegaly is suspected, however, this is better characterized at the time of the ultrasound or with radiographs. The liver's borders are smooth, but mildly rounded. A diffuse, mildly coarse or granular echotexture is observed. It is also mildly hyperechoic. No abnormalities are observed with the hepatic vessels visualized.

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The gallbladder wall is within normal limits in thickness and echogenicity. A small amount of echogenic material is present within the GB. The portions of the cystic and/or common bile ducts observed are not dilated or tortuous, i.e. there are no signs of an obstruction.

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**Gastrointestinal**

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A large amount of ingesta, fluid and gas are present within 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.

**AGE**

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Stippling and mild fogging of the mucosa of the **duodenum** are observed.

The small intestinal wall thickness is within normal limits and the definition of the wall layers is preserved. Abnormally dilated loops of bowel are not observed.

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The colonic wall is at the high end of normal reference range at 0.20 cm. Mural detail is considered normal.

There are no obvious signs of a mass, foreign body, infiltrative disease or an obstruction in the gastrointestinal tract.

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**Pancreas**

The pancreas has a mildly coarse echotexture, which is considered secondary to age related changes. There are no signs of active pancreatitis or neoplasia.

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**Other**

**Lymph nodes** No abnormalities are observed

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**Abdominal effusion** is not visualized.

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**ULTRASONOGRAPHIC FINDINGS**

- An adrenal mass is not visualized on today's abdominal ultrasound. Both adrenal glands are within normal limits, albeit at the high end of the normal reference range for a dog of Charlie's stature. When correlated with clinical science and laboratory results, the ultrasound findings are consistent with a diagnosis of **adrenal hyperplasia** secondary to **pituitary dependent hyperadrenocorticism**.

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- The mild stippling of the **duodenum** may be clinically insignificant, however, subclinical inflammatory bowel disease cannot be excluded. Obtaining a history regarding gastro-oesophageal reflux, vomiting, and pica, etc. is suggested.

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- Age-related changes** are observed with **both kidneys**. However, the **mild pyelectasia** of the left kidney may be due to polydipsia and secondary polyuria. Although the urine culture was negative, pyelonephritis remains a possible differential diagnosis. However, treatment is NOT recommended, as Charlie is not demonstrating clinical signs.

**BREED**

Border Terrier

- Hepatomegaly and mild hyperechogenicity** of the liver are consistent with a vacuolar hepatopathy. These findings are often observed with hyperadrenocorticism. A very mild reactive hepatopathy is also possible.

**SEX**

Spayed Female

- The **pancreatic changes** are considered age-related.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Obtaining a history regarding gastro-oesophageal reflux, vomiting, and pica, etc. is suggested.

A **urine protein: creatinine ratio** is suggested as the urine specific gravity (USG) is 1.016 and false negative results (for protein) may occur on dipsticks with USG less than 1.015

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An **arterial blood pressure** is recommended.

Trilostane (Vetoryl) may be pursued for the treatment of hyperadrenocorticism.

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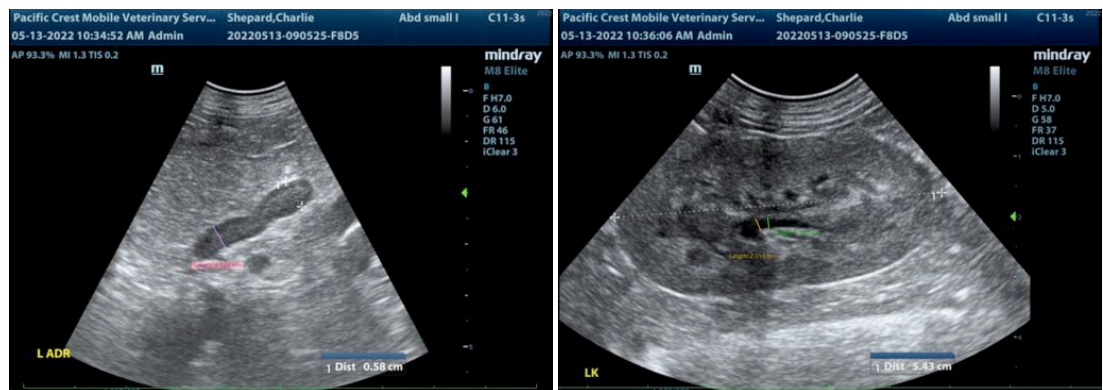
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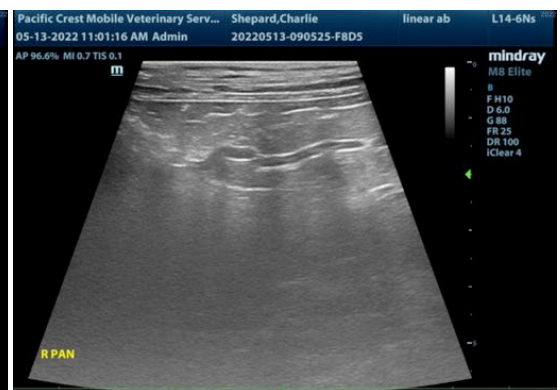
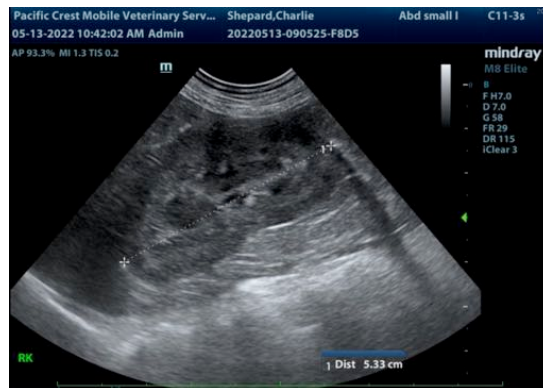
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

[Lisa.Carioto@sonopath.com](mailto:Lisa.Carioto@sonopath.com)