



**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT** Ellie Cooper

**SPECIES** Canine

**BREED** Papillon Mix

**SEX** Spayed female

**AGE** 10 years

**WEIGHT** 6.4 kg

**INTERPRETED BY** Beth Johnson, DVM DACVIM

**IMAGING PERFORMED BY** Dr. Callihan Pacific Crest Mobile

**HOSPITAL NAME** Pacific Crest Mobile VS

**REFERRING VET** Dr. Johnson Advanced Care AC

**INVOICE** 40163

**DATE** 10/19/22

History: Routine/annual check on 10/11/2022: Only concern was scooting/check anal glands. History of cystotomy 9/28/2021 for calcium oxalate cystic calculi Meds: none, just prescription Royal Canin S/O PE abnormalities: -obese -dull/sparse coat with ventral truncal alopecia -murmur 3/6 mitral -dental disease -various subcutaneous truncal masses -pollakiuria 5/2022 (negative urinary culture; symptoms resolved at this time) Lab abnormalities -HCT 59% -PLT 522K -BG 63 (low; however all labs are sent out and bg spot check today was normal despite fasting) -K 5.5 -TP 7.1 -AST 50 -ALKP 1914 (723 on 9/28/2021) -T4 is normal -CK744 (record notes pt was very stressed/agitated for blood draw) UA shows USG 1.023

Abnormal PE/Chem/CBC/UA Results: PE abnormalities: -obese -dull/sparse coat with ventral truncal alopecia -murmur 3/6 mitral -dental disease -various subcutaneous truncal masses -pollakiuria 5/2022 (negative urinary culture; symptoms resolved at this time) Lab abnormalities -HCT 59% -PLT 522K -BG 63 (low; however all labs are sent out and bg spot check today was normal despite fasting) -K 5.5 -TP 7.1 -AST 50 -ALKP 1914 (723 on 9/28/2021) -T4 is normal -CK744 (record notes pt was very stressed/agitated for blood draw) UA shows USG 1.023

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Left kidney is normal is size (4.4 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted. There is no evidence of pyelectasia or infarcts observed.

Right kidney is normal is size (4.06 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted. There is no evidence of pyelectasia or infarcts observed.

**Adrenal Glands**

Left adrenal gland is normal in size (0.47 cm at cranial pole and 0.5 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (1.2 cm at cranial pole and 0.62 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

**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.



**PATIENT**

**Liver**

Ellie Cooper

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

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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.

**SEX**

Spayed female

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

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The visible small intestines are normal in wall thickness and layering. 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.

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

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**Pancreas**

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

**IMAGING PERFORMED BY**

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Crest Mobile

**Free Abdomen**

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

**HOSPITAL NAME**

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**ULTRASONOGRAPHIC FINDINGS**

**REFERRING VET**

Dr. Johnson Advanced  
Care AC

**Primary Findings**

- **Hyperechoic hepatomegaly (canine)** – This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible, but considered less likely.

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**Secondary Findings**

**Urinary bladder debris.**

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**Non-obstructive nephrolithiasis bilaterally.**



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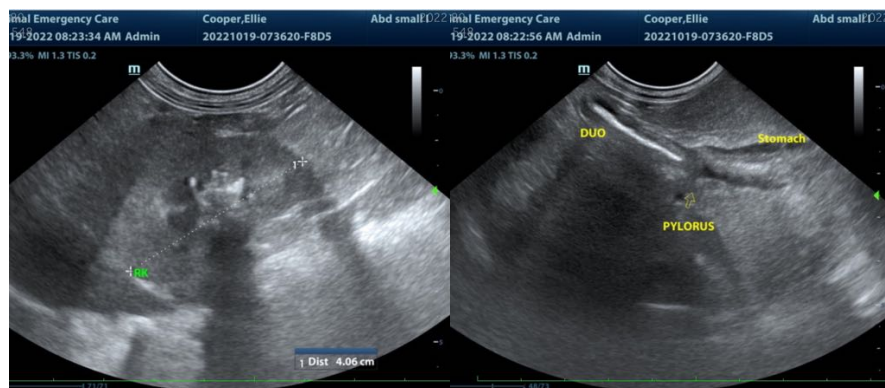
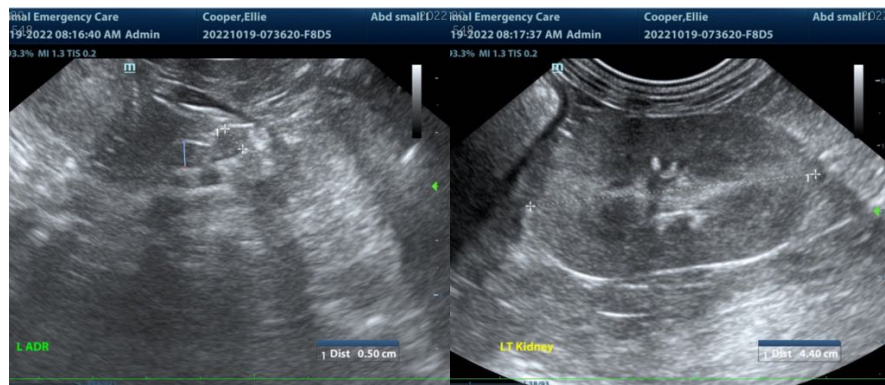
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Differentials for increased ALP are vast and non-specific. Differentials include, but are not limited to, benign nodular hyperplasia which occurs in 70% of older dogs and often does not result in an abnormal ultrasound, reactive or idiopathic/vacuolar hepatopathy, cholestasis and/or hyperadrenocorticism as well as many chronic non-hepatobiliary diseases such as chronic infections/inflammation from dental disease, IBD, neoplasia, hyperlipidemia, hypothyroidism, chronic pancreatitis, chronic stress, etc.

There is no ultrasonographic evidence of cholestasis. Adrenocortical testing such as a low dose dexamethasone suppression test could be considered if clinical signs of hyperadrenocorticism are present. Ursodiol could be considered if gallbladder sludge is noted. A fine needle aspirate of the liver could be considered if patient's coagulation status is appropriate. Otherwise, recommendations include addressing any other concurrent disease and monitoring. If values are progressive, recheck imaging is recommended.





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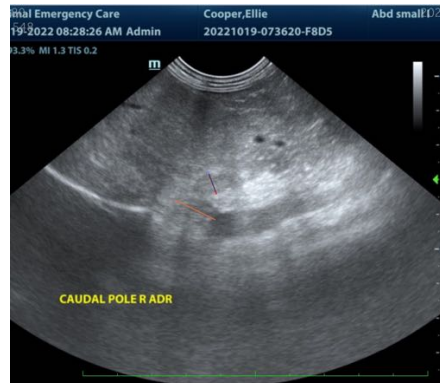
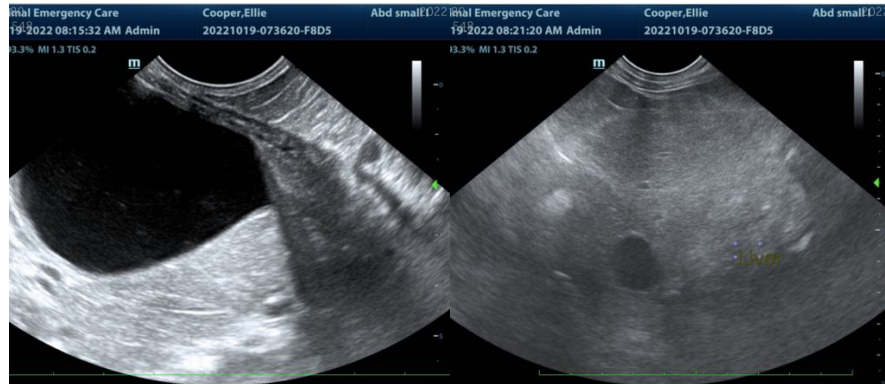
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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