



**PATIENT**

Ozzy Flint

**PRESENTING CLINICAL SIGNS**

Non clinical but persistent elevation of ALPK for 12 months. Has had bilateral enucleation due to autoimmune disorder so is blind. Given butorphanol for scan

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: Persistent elevation of ALPK No LDDST performed to date

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED**

Shepherd Mix

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

**SEX**

MN

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 5.3 cm in length. The right kidney measured 5.1 cm in length.

**AGE**

11

The area of the aortic trifurcation was free of pathology.

**WEIGHT**

19kg

The area of the residual prostate appeared normal and free of pathology measuring 1.2 cm.

**Adrenal Glands**

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.51 cm width at the caudal pole and 0.63 cm width at the cranial pole.

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

A well-defined, hyperechoic nodule was present in the mid to caudal left adrenal gland with mild associated symmetrical capsule expansion. The nodule did not exhibit signs of mineralization or vascular invasion. The nodule measured 1.8 cm x 1.3 cm. The left adrenal gland measured 1.3 cm width at the caudal pole and 0.64 cm width at the cranial pole.

**IMAGING PERFORMED BY**

Dr. Belan

**Spleen**

The spleen exhibited normal size and contour with subtle parenchyma heterogeneity. No evidence of masses or nodules. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Splenic changes likely consistent with age-related variant with potential for discrete hyperplasia, hematopoiesis or less likely breed associated hypersplenism. No overt evidence of splenic neoplastic criteria was observed.

**HOSPITAL NAME**

Animal Clinic  
Downtown

**Liver**

**REFERRING VET**

Dr. Waldman

The liver presented mildly enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion.

**INVOICE**

11960ag

The gallbladder was non-distended in size with primarily anechoic luminal content and mild echogenic debris in the caudal lumen and gallbladder neck. No evidence of gallbladder or peripheral gallbladder inflammation was present. The cystic and common bile ducts were normal.

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10/20/2022



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**Gastrointestinal**

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The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

**SPECIES**

Canine

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

**BREED**

**Pancreas**

Shepherd Mix

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

**SEX**

MN

**Free Abdomen**

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

**AGE**

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**ULTRASONOGRAPHIC FINDINGS**

- Mild vacuolar hepatopathy pattern-benign
- Mild gallbladder debris (non-mucocele)
- Non-specific left adrenal nodule
- Mild age-related renal changes

**WEIGHT**

19kg

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

The appearance of the liver is consistent with benign hepatopathy i.e. vacuolar hepatopathy. Hepatosupportive medications such as Denamarin or Vitamin E as well as Ursodiol due to its antioxidant and immunomodulatory effects within the liver would be warranted, although these medications may not result in decreased hepatic enzyme levels.

**IMAGING PERFORMED BY**

Dr. Belan

The left adrenal nodule is nonspecific with considerations including adenoma, benign hyperplasia, granuloma although emerging neoplasia such as pheochromocytoma, adenocarcinoma or other cannot be definitively excluded. The adrenal nodule is suspected to be non-functional given lack of reported clinical signs. Screening BP to assess for evidence of hypertension which may allude to a left adrenal pheochromocytoma is recommended. Sonographic monitoring of the nodule for evidence of progression with initial recheck in 2-3 months would be ideal.

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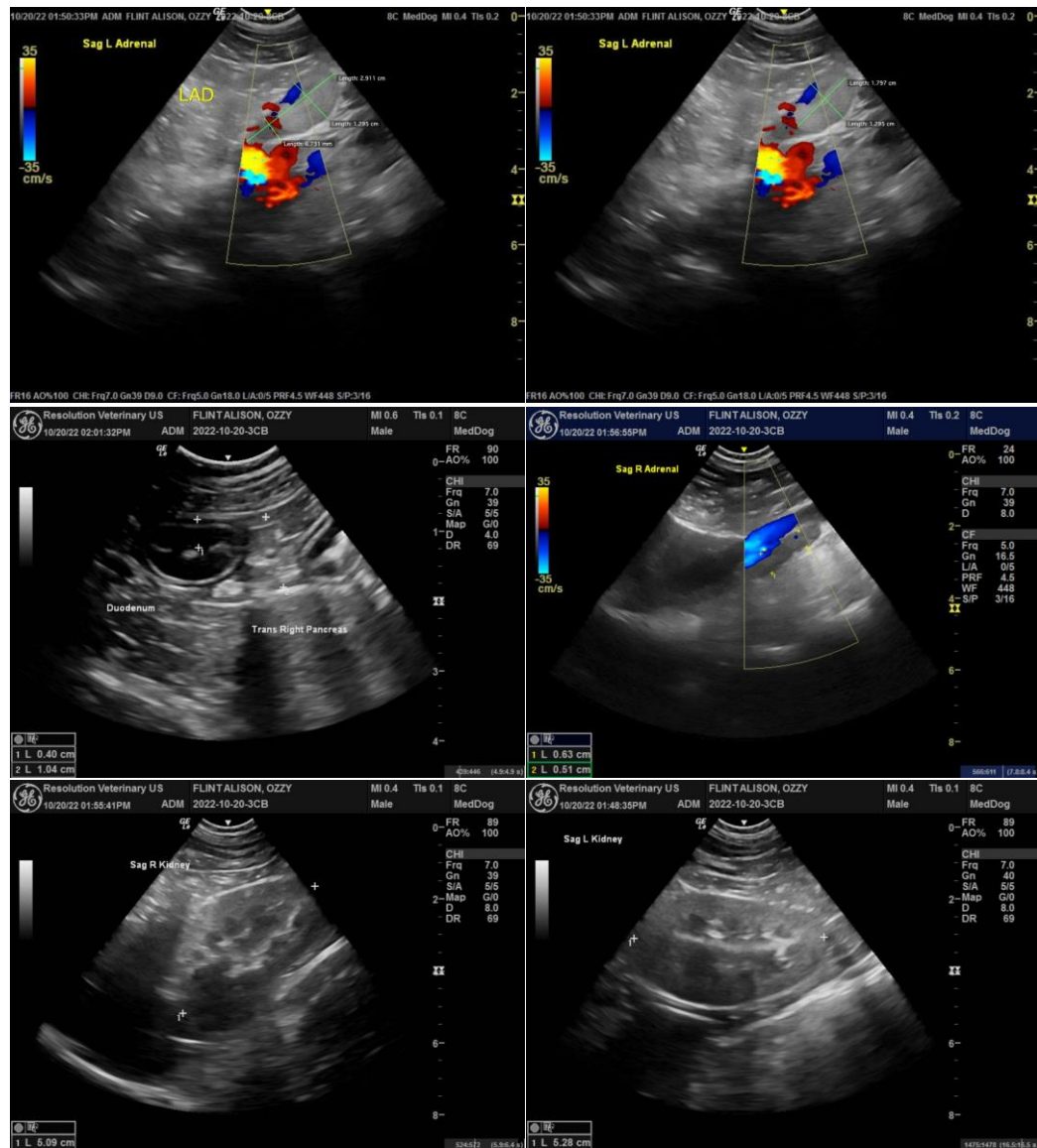
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

info@SonoPath.com