

**PATIENT PRESENTING CLINICAL SIGNS**

**Sammy Davis** History: Not PU/PD, chronic history of elevated spec CPL, Decreased appetite, ADR. Has been on Hepatosyl, Fortiflora, Hepato support

**SPECIES** Abnormal PE/Chem/CBC/UA Results: CBC - Platelets 548(143-448) Urea 20.1 (3.2-11.0) ALT 184(18-21), ALP 665(5-160), CPLi elevated 693, elevated Lipase, SDMA 16(0-14), elevated K and elevated Na:K ratio  
Canine

**BREED ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Cockapoo** *Urinary System*

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 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

**AGE**

12yr

Normal renal size with asymmetrical margination was present in both kidneys. The renal cortex presented uniformly thickened with increased in echogenicity with uniform echotexture. Intermittent bilateral cortical cysts and probable infarcts were noted. Mild loss of corticomedullary distinction was also present. The renal medullary volume was subjectively reduced. The left kidney measured 5.9 cm in length. The right kidney measured 6.9 cm in length.

**WEIGHT**

12.2kg

The area of the aortic trifurcation was free of pathology.

The residual prostate was free of pathology measuring 0.8 cm in diameter.

*Adrenal Glands*

The left adrenal gland was normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 0.65 cm width in the cranial pole and 1.7 cm length. The right adrenal gland was indistinctly visualized.

*Spleen*

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.

*Liver*

The liver presented 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.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Crystal Hill

**HOSPITAL NAME**

Hartzel Animal  
Hospital

**REFERRING VET**

Dr. Allo

**INVOICE**

11459ag

The gallbladder was non-distended in size with primarily anechoic luminal content and mild echogenic luminal debris. The cystic and common bile ducts were normal.

**DATE**

08/22/2022

*Gastrointestinal*



**PATIENT**

Sammy Davis

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 measuring 0.44 cm in wall width. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material. The duodenum wall measured 0.50 cm in width, the jejunum measured 0.40 cm in width.

**BREED**

Cockapoo

**Pancreas**

The pancreas base and right pancreatic limb exhibited prominent size with irregular to heterogeneous parenchyma compared to the adjacent omental fat. The visible pancreatic duct was normal.

**SEX**

MN

**Free Abdomen**

No overt lymphadenopathy or peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

**AGE**

12yr

- Bilateral moderate chronic renal changes with cortical cysts and probable cortical infarcts
- Hepatopathy-subjectively benign
- Mild gallbladder debris (non-mucocele)
- Heterogeneous pancreas

**WEIGHT**

12.2kg

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The appearance of the liver was nonspecific but most consistent with benign hepatopathy. Considerations for the liver may include benign vacuolar hepatopathy in light of the elevated ALP or inflammatory/infectious hepatic disease in light of the elevated ALT. No overt evidence of hepatic neoplasia which is considered a less likely differential diagnosis.

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Ultrasound guided FNA of the liver using a 25-gauge needle and assuming normal coagulation parameters would be warranted for screening cytology, primarily to assess for evidence of inflammatory cells and to rule out unlikely neoplasia. Hepatosupportive medications such as Denamarin or Vitamin E and Ursodiol, therapy for chronic to active pancreatitis as well as needed GI support would be warranted. Leptospirosis titers / PCR may be considered if clinically indicated.

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The pancreas was suggestive of chronic-to-chronic active pancreatitis. This potential may be considered if evidence of cranial abdominal or subxiphoid discomfort on palpation. Correlation with a spec cPL or a GI panel to include PLI/TLI/Cobalamin/Folate is recommended.

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Further renal staging to include UA, C/S and protein: creatinine ratio on sterile urine sample may be considered.

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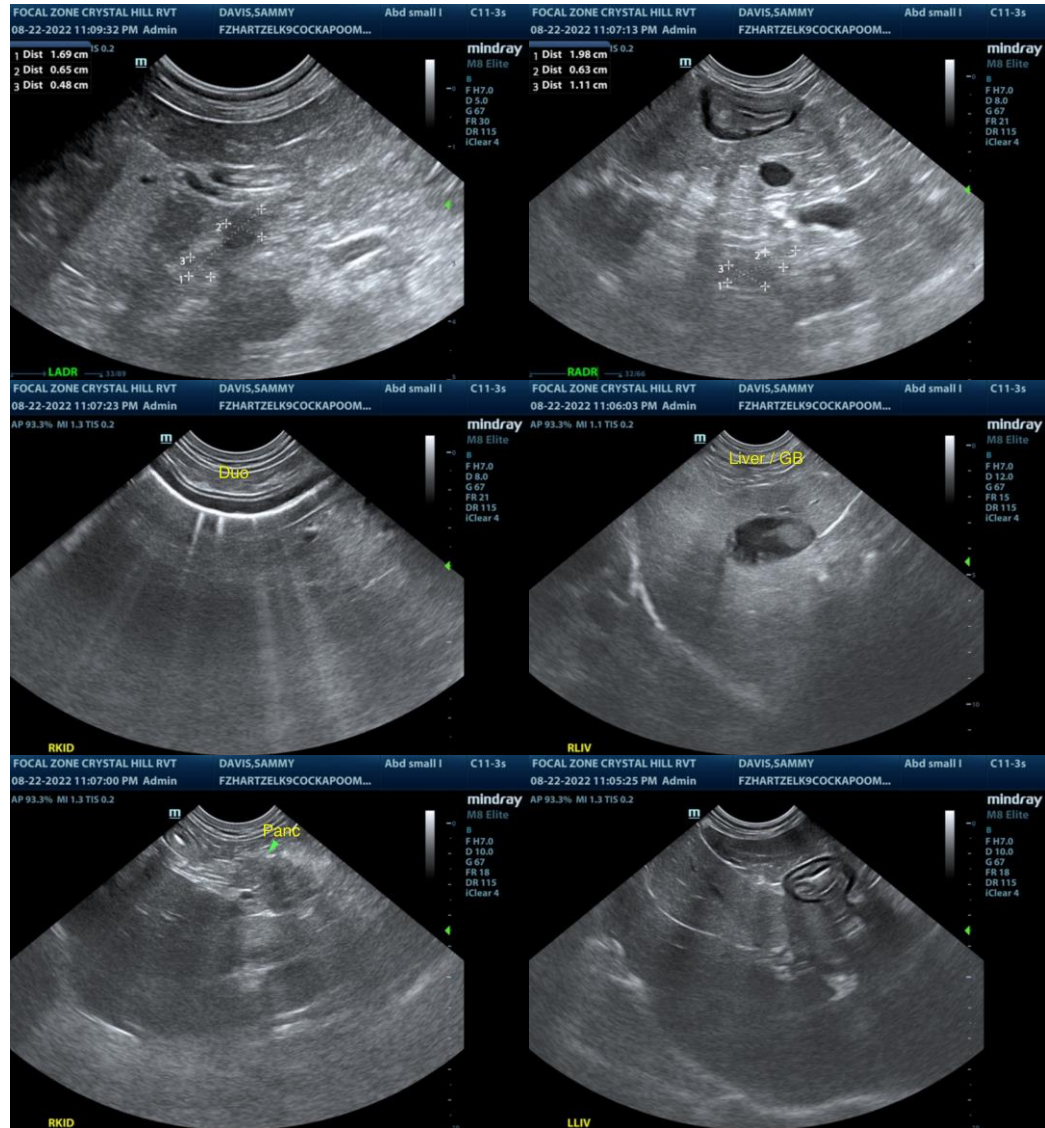
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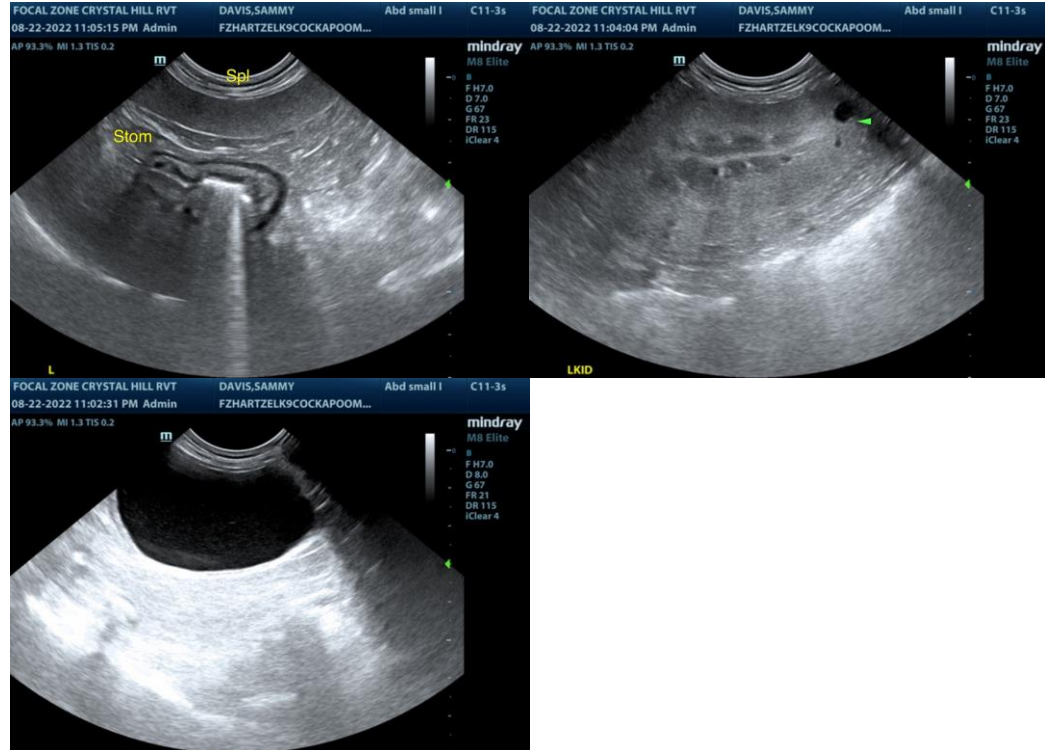
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

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