



**PATIENT**

Alvin Difiore

**SPECIES**

Canine

**BREED**

Maltese x Chihuahua

**SEX**

Male

**AGE**

12 Years

**WEIGHT**

11.5 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jose

**HOSPITAL NAME**

AC of Queens

**REFERRING VET**

Dr. Mucera

**INVOICE**

36333

**DATE**

3/22/22

**PRESENTING CLINICAL SIGNS**

Presented for still legs. Bloodwork performed found elevated liver enzymes. Abnormal PE/Chem/CBC/UA Results: Abdomen tense and unable to palpate organs. BCS 4/9. Vet screen: AST 343 (H) 15-66 ALT: 2021 (H) 12-118 Alk phosphatase: 1598 (H) 5-131 glucose: 34 (L) 70-138 potassium 6.9 (H) 3.6-5.5 Na/K Ratio: 22 (L) 27-38 CBC: WBC: 24 (h) 4-15.5 Hemoglobin: 10.2 (L) 12.1-20.3 HCT: 33 (L) 36-60 T4: WNL

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 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.

The area of the prostate was without overt pathology.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Multiple small cortical cysts and pinpoint mineral noted in both kidneys. The right kidney measured 3.9 cm.

**Adrenal Glands**

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.57 cm at the cranial pole and 0.64 cm at the caudal pole. The right adrenal gland measured 0.60 cm at the cranial pole and 0.71 cm at the caudal pole.

**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**

Generalized hepatomegaly noted, primarily owing to a large, expansive, non-uniform to nodular mass, appearing to involve the majority of the caudal liver, extending caudally into the level of the mid abdomen. The mass measured approximately 8-10 cm in diameter, but potentially larger, as the entire mass would not fit into a single viewing window. The discernable mid to deep hepatic parenchyma exhibited mild to moderate coarse echotexture with evidence of mild to generalized parenchymal remodeling. The gallbladder was non distended in size with mild, echogenic, nonmineralized biliary sludge. The cystic duct and common bile ducts were normal without evidence of dilation.

**Gastrointestinal**

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.



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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.

**SPECIES**

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**Pancreas**

The pancreas was ill-visualized owing to the presence of the expansive liver mass.

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**Free Abdomen**

Mild volume peritoneal free fluid noted, primarily in the mid to cranial abdomen, around the liver and liver mass. No overt lymphadenopathy.

**SEX**

Male

- Expansive, non-homogeneous to nodular liver mass extending caudally into the mid to cranial abdomen
- Bilateral chronic renal changes with small cortical cysts
- Mild gallbladder debris – incidental.

**AGE**

12 Years

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Although sampling is required for further clarification, the hepatic mass is suggestive of neoplastic criteria such as adenocarcinoma or other with non-neoplastic etiologies such as significant hyperplasia or granuloma possible, yet thought less likely.

**WEIGHT**

11.5 Pounds

Assuming normal clotting status, ultrasound guided FNA of the mass could be considered for screening cytology. Surgical resectability of the mass is questionable, given its size and potential involvement of more than one liver lobe. If surgical options are being considered, abdominal CT for further assessment as well as surgical plan would be idea. 3-view chest radiographs suggested if not done.

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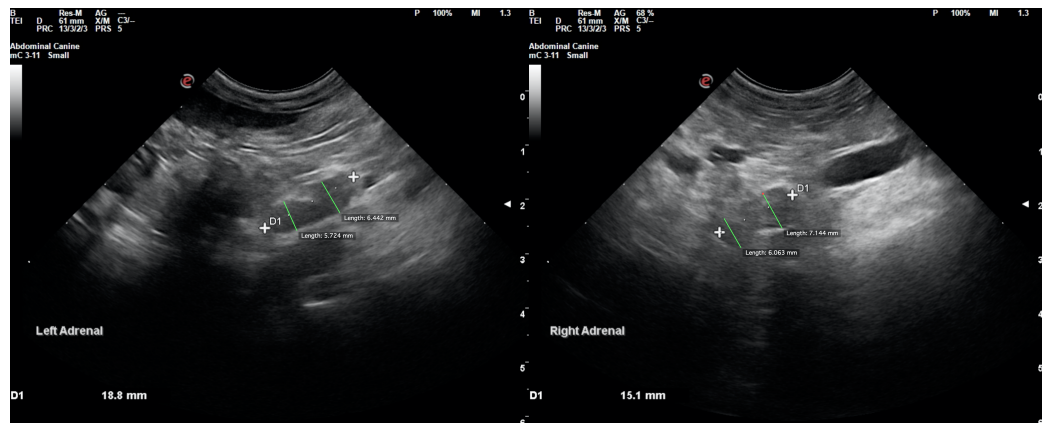
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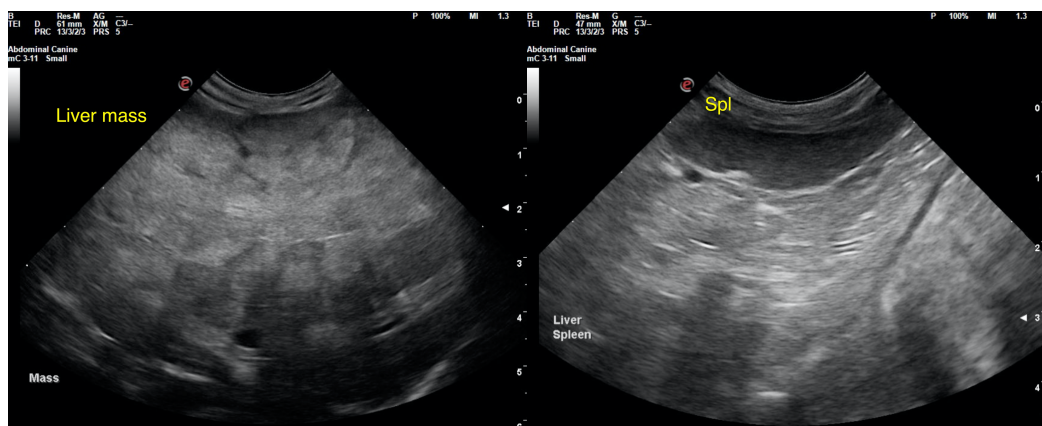
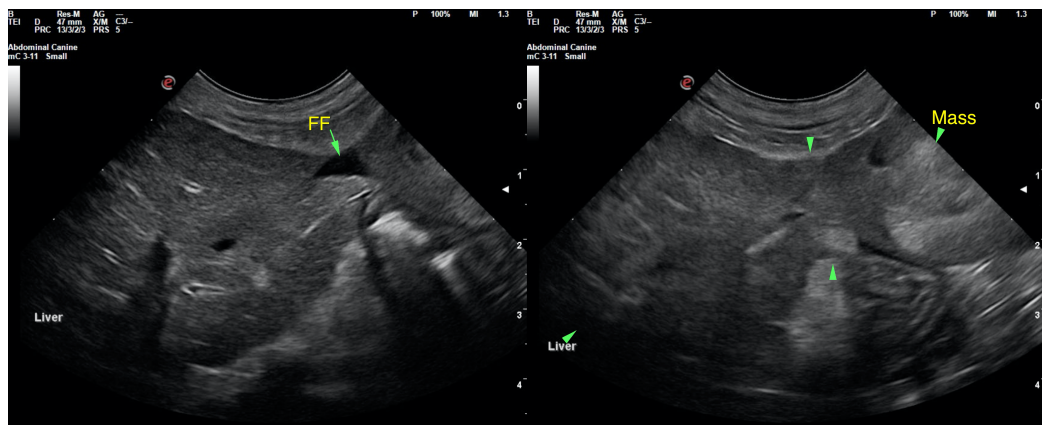
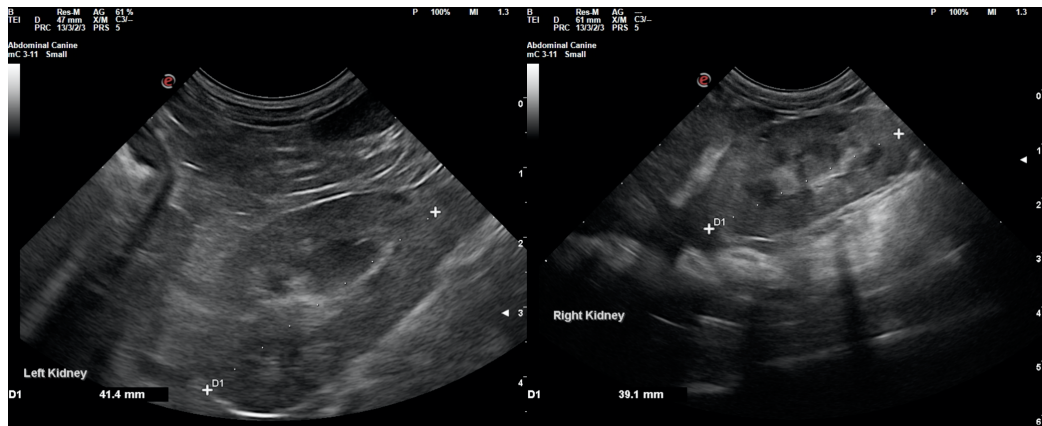
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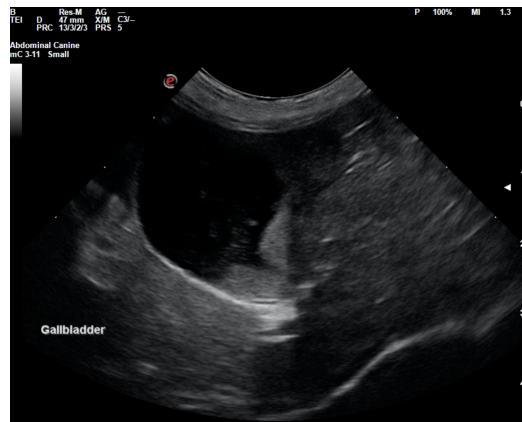
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)**

info@SonoPath.com