



**PATIENT**

Joe Markin

**SPECIES**

Canine

**BREED**

Chihuahua X

**SEX**

MN

**AGE**

10 years

**WEIGHT**

5.1 kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Sarah Barthelemy

**HOSPITAL NAME**

Ranchlands Vet  
Clinic

**REFERRING VET**

Dr. Sam

**INVOICE**

15299

**DATE**

10/27/22

**PRESENTING CLINICAL SIGNS**

Pre-anesthetic labs showed liver enzyme elevations. No clinical signs.

Abnormal PE/Chem/CBC/UA Results: Elevated ALT 307, ALP 1843, elevated pre and post BA at 59.4 and 61.9 respectively. Mild neutrophilia.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**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 was noted.

The area of the residual prostate was free of pathology.

The area of the aortic trifurcation was free of pathology.

A moderately sized, nonhomogeneous pinpoint hyperechoic left kidney mass with associated distortion of the renal capsule, as well as obliteration of regional renal parenchyma was present. The left kidney mass measured 3.5-4.0 cm in diameter. The discernable left kidney measured approximately 4.0 cm in length. Minor left kidney pyelectasia and evidence of peri-pelvic mineralization were present.

Normal size and margination were present in the right kidney. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. Pinpoint areas of medullary mineral were noted. No evidence of pelvic dilation was present. The right kidney measured 3.6 cm in length.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.47 cm width at the caudal pole and 0.49 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.53 cm width at the caudal pole and 0.63 cm at the cranial pole.

**Spleen**

The spleen was overall normal in size with areas of mild capsule asymmetry and subjective decreased parenchyma echogenicity exhibiting mild to moderate coarse echotexture. Soft tissue echogenicity was present in the splenic vein, suggestive of emerging small splenic vein thrombus. Subjective adequate splenic vascularity was noted.

**Liver/ Gallbladder**

The liver was enlarged with areas of capsule asymmetry and nonhomogeneous hepatic parenchyma exhibiting diffuse hypoechoic intraparenchymal nodules. An example of a liver nodule measured 2.3 cm in diameter. The gallbladder was non-distended in size containing mild gallbladder debris. The cystic and common bile ducts were normal.



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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.

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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.

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

**SEX**

MN

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 were evident.

**AGE**

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**Free Abdomen**

Mild volume peritoneal to retroperitoneal free fluid was present. Increased left retroperitoneal tissue echogenicity was noted along with generalized mild increased omental echogenicity.

**WEIGHT**

5.1 kg

**ULTRASONOGRAPHIC FINDINGS**

- Left kidney mass
- Right kidney mild to moderate chronic renal changes
- Infiltrative hepatopathy pattern
- Subjective hypoechoic spleen with suspect small emerging splenic vein thrombus
- Peritoneal to retroperitoneal free fluid

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Unfortunately, the left kidney mass, as well as the diffuse hepatic intraparenchymal nodules are consistent with multicentric neoplastic criteria. Potential for early splenic involvement could also be possible. Further assessment may include screening hepato-renal FNA cytology and potential for oncology consult for chemotherapeutic intervention. However, a likely unfavorable long-term prognosis is indicated. Coagulation profile is suggested to assess for evidence of a hypercoagulable state.

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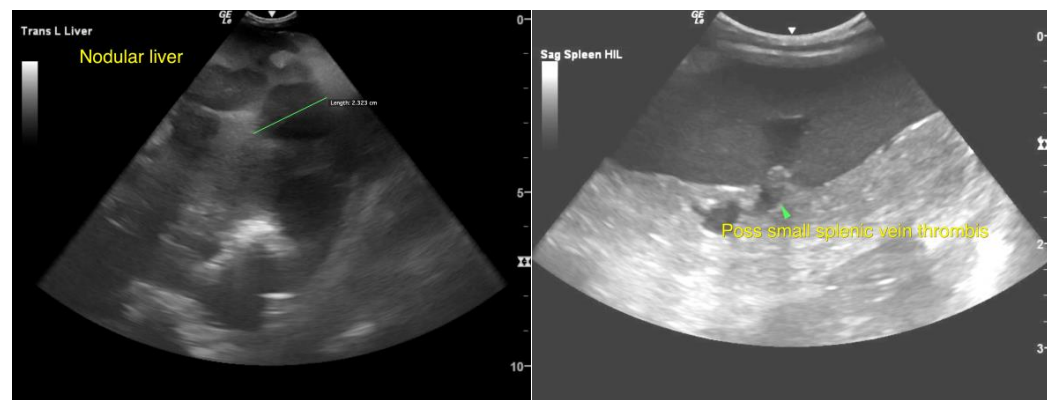
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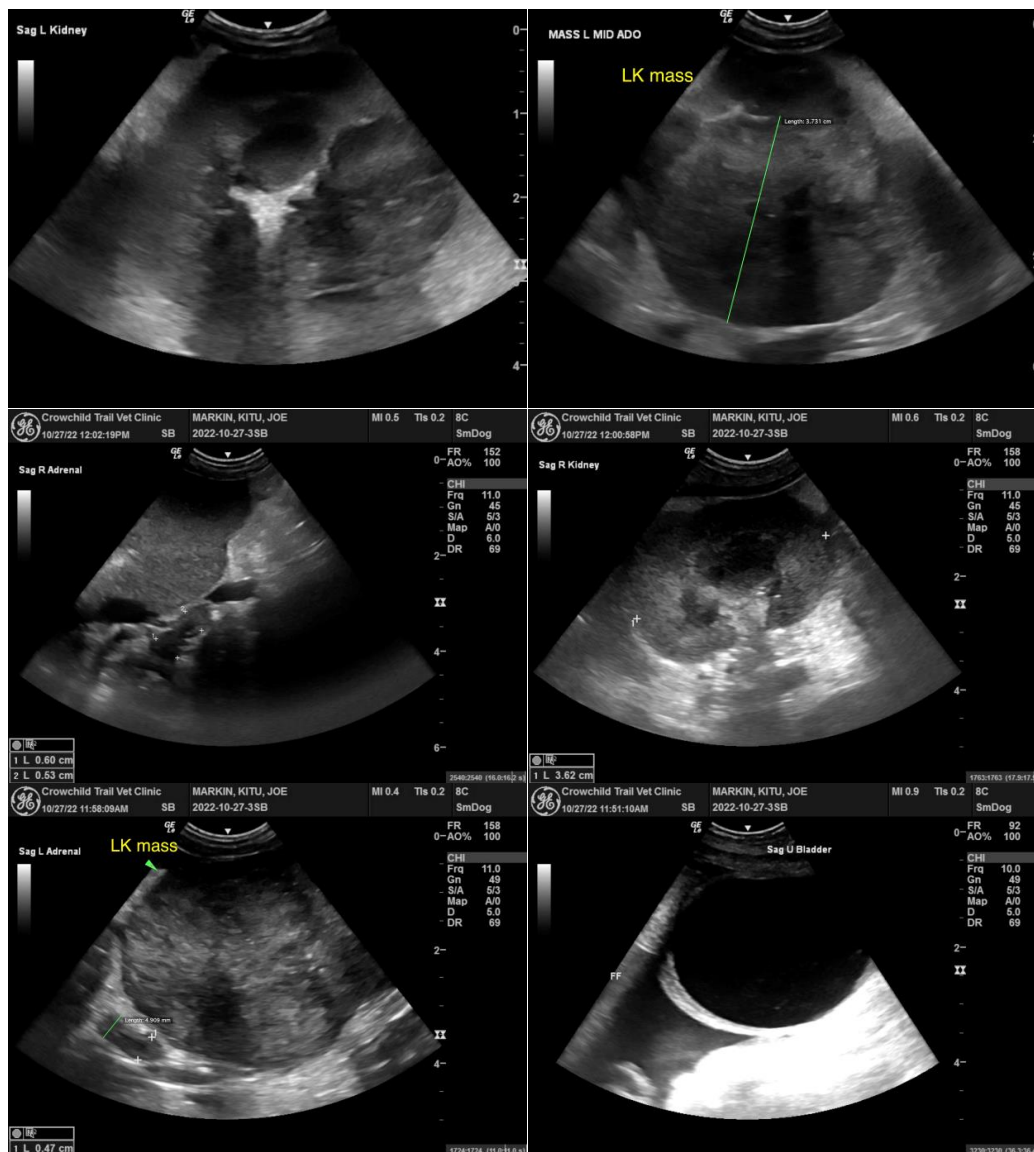
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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