**PATIENT**

Max Baker

**SPECIES**

Canine

**BREED**

Yorkie

**SEX**

MN

**AGE**

12 yr

**WEIGHT**

8 lb

**INTERPRETED BY**R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)**IMAGING  
PERFORMED BY**

Rachel Runnells RVT

**HOSPITAL NAME**

SVS Imaging KC

**REFERRING VET**

Dr. John Lyle

**INVOICE**

10909ag

**DATE**

06/22/2022

**PRESENTING CLINICAL SIGNS**

History: Went to ER 6/20/22 due to bloating. Large amount of straw color and slightly cloudy fluid was in abdomen. Next day arrived at regular DVM - drained abdominal fluid.

Abnormal PE/Chem/CBC/UA Results: 6/21: BAR, crt < 1s, mm pink and moist. Distended abdomen - non-painful. Chem: LOW: Albumin 2.3 (2.7-4.4), CREA 0.4 (0.5-1.6), Calcium 8.3 (8.9-11.4). HIGH: BUN/CREA ratio 28 (4-27). CBC: LOW: RBC 3.6 (4.8-9.3), HGB 9.3 (12.1-20.3), HCT 28 (36-60). HIGH: WBC 31.6 (4.0-15.5). 6/22: BAR, eating well, no V/D.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra 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.

Normal size and margination was 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 mild loss of corticomedullary symmetry and definition expected for the age of the patient. Pinpoint areas of medullary mineral were noted bilaterally. No evidence of pelvic dilation was present. The left kidney measured 3.9 cm in length. The right kidney measured 4.1 cm in length.

The area of the aortic trifurcation was free of pathology.

The area of the residual prostate was free of pathology.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.66 cm width at the caudal pole and 0.56 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 0.65 cm width at the caudal pole.

**Spleen**

The spleen exhibited normal size and contour with a finely textured and homogenous parenchyma. Potential for mild decreased parenchyma echogenicity compared to the liver. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

**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. The gallbladder was non-distended in size with primarily anechoic luminal content and moderate hyperechoic nondependent yet mobile debris. The cystic and common bile ducts were normal.

**Gastrointestinal**

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The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained echogenic, nonshadowing ingesta without signs of obstruction or foreign material.

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The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Segmental propensity for mild increased mucosa echogenicity to nonspecific mucosal speckling was noted. 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 semi formed feces in lumen.

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***Pancreas***

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No overt signs of active inflammation or neoplasia.

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***Free Abdomen***

Mild volume anechoic peritoneal free fluid was noted.

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Multiple enlarged, hypoechoic intra-abdominal lymph nodes were present. The lymph nodes exhibited symmetrical to rounded margination with abnormal width: length ratio (>0.5). The enlarged lymph nodes were bordered by echogenic to reactive mesentery. The mesenteric root lymph nodes measured 1.6 cm length and 1.5 cm width.

Rapid view of the heart revealed no evidence of pericardial masses or effusion in the visible window.

**WEIGHT**

8 lb

**ULTRASONOGRAPHIC FINDINGS**

- Multiple hypoechoic swollen intra-abdominal lymphadenopathy
- Mild volume peritoneal free fluid and generalized hyperechoic mesentery
- Hepatomegaly
- Mild chronic renal changes
- Gastric ingesta
- Intact small bowel wall layering exhibiting mild segmental nonspecific mucosal fogging to speckling

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Although sampling is required for further assessment the swollen intra abdominal lymph nodes are strongly suggestive of neoplastic criteria i.e. lymphoma. Potential for lymphatic obstruction with secondary peritoneal free fluid is of concern given reported ALB levels and lack of GI clinical signs. Lymphadenitis and nonspecific enteropathy i.e. emerging PLE could also be possible. Potential for multicentric neoplasia involving the liver +/- spleen cannot be excluded. Assuming normal clotting tatus an ultrasound guided FNA of an enlarged intra abdominal lymph node as well as screening hepatosplenic FNA and effusion analysis is recommended.

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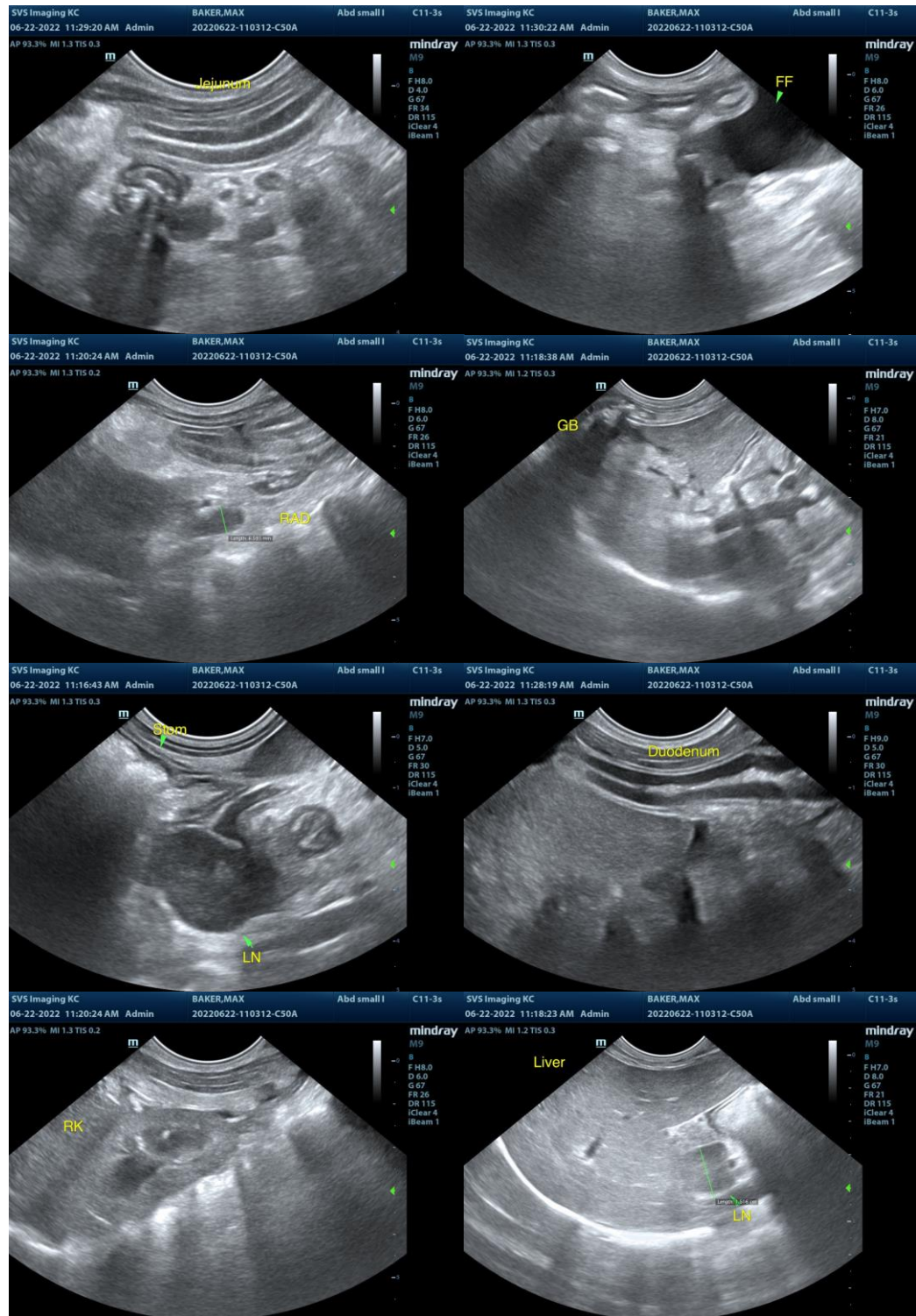
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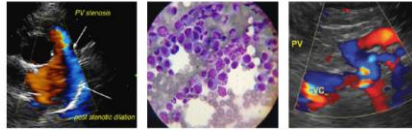
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**Clinical Sonography & Telectology**

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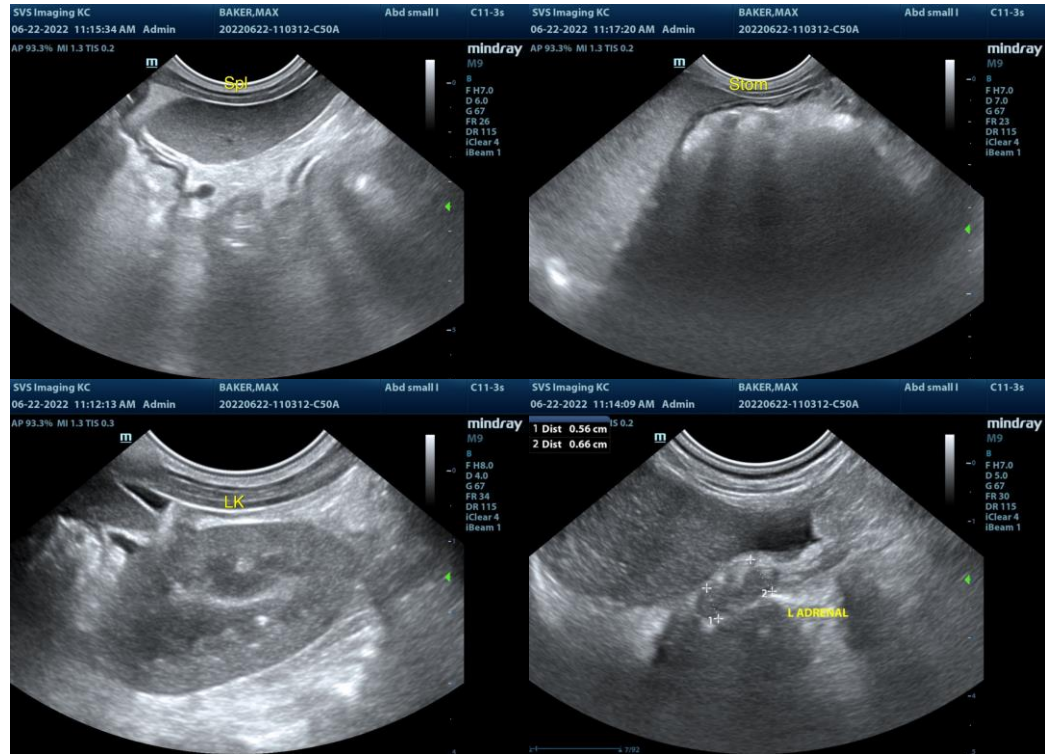
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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