



PATIENT

Jax Vap

SPECIES

Canine

BREED

Brittany Mix

SEX

Neutered Male

AGE

6 years

WEIGHT

48.3

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Runnells, RVT

HOSPITAL NAME

SVS Imaging Kansas
City

REFERRING VET

Dr. Meyers

INVOICE

12374

DATE

10/6/21

PRESENTING CLINICAL SIGNS

Presented 9/8/21 for not eating and lethargy. Temperature of 104.4. BW wnl at that time. Placed on Augmentin. Did well and then came back in on 9/27/21 and had a fever of 105.5. tick titers performed (still awaiting results). Placed on doxycycline and vetprofen. Presented on 10/4/21 for inappetence. No fever noted (101.1). Radiographs performed. Was icteric on presentation. 10/6/21 presented for fluids and BW. Temperature 102.1. still icteric. Currently on fluids.

Abnormal PE/Chem/CBC/UA Results: Rads: Decreased detail in ventral abdomen. No abdominal organ enlargement identified. Chem: GLU 172 (74-143), SDMA 31 (0-14), BUN 36 (7-27), GLOB 4.6 (2.5-4.5), ALT 2459 (10-125), ALKP 5344 (23-212), GGT 23 (0-11), TBIL 16.3 (0-0.9), K 3.2 (3.5-5.8), Cl 108 (109-122). No T4 tested. CBC: RETIC 128.9 (10-110), WBC 70.16 (5.05-16.76), Neut 50.86 (2.95-11.64), Bands suspected, Lym 12.73 (1.05-5.1), Mono 6.4 (0.16-1.12), PLT 113 (143-434), MPV 13.8 (8.7-13.2).

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. Primarily anechoic urine was present in the lumen. Mild, particulate, nondependent sediment was present without evidence of calculus formation. The bladder was otherwise normal, without evidence of distention. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.

No overt pathology was noted in the area of the residual prostate or aortic trifurcation.

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 pyelectasia. The left kidney measured 6.7 cm in length. The right kidney measured 6.9 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 0.51 cm width at the caudal pole and 0.58 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 0.47 cm width at the caudal pole and 0.79 cm width at the cranial pole.

Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. 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. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

Liver/ Gallbladder

The liver exhibited subjective mild generalized enlargement. The hepatic parenchyma revealed diffuse reduced echogenicity compared to the spleen and renal cortical parenchyma with a mild coarse echotexture. Increased portal vein prominence was evident. The capsule of the liver was normal in



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margination. Distinct masses or nodules were not evident. The hepatic and portal vasculature were normal in appearance. The gallbladder presented subjectively non-distended in size with mild uniformly echogenic inspissated gallbladder debris. The common bile duct was not definitively visualized, yet was without overt evidence of common bile duct stasis, dilation, or obvious post hepatic obstruction.

Gastrointestinal

The visualized ventral gastric body wall was sonographically unremarkable with intact wall layering. A mild amount of retained echogenic ingesta / chyme and luminal gas was present.

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.

Pancreas

Sonographic assessment of the pancreas was somewhat limited owing to peritoneal free fluid and regional peripancreatic omental artifact. Obvious evidence of pancreatic pathologies such as significant inflammation or overt neoplasia was not noted.

Free Abdomen

Regional primarily perihepatic reactive to potentially inflamed mesentery was present. Moderate peritoneal free fluid was also present. No overt lymphadenopathy was noted.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Acute hepatopathy with regional perihepatic reactive to inflamed mesentery
- Nondistended gallbladder with mild luminal debris - no overt mucocele or obvious post hepatic obstruction evident
- Moderate peritoneal free fluid - non-septic effusion (secondary to portal hypertension, decreased hydrostatic pressure, increased vascular permeability, or septic effusion), possible

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Primary differential diagnoses for the liver may include; acute hepatitis (viral, bacterial, Leptospirosis, toxin), or occult hepatic neoplasia i.e., lymphoma or other. Given the lack of post hepatic obstruction, the severity of hepatic enzymes, and elevated white blood cell count, the potential for acute hepatic failure is possible. Effusion analysis, cytology +/- C/S, as well as, assuming normal clotting status, hepatic FNA for screening cytology is recommended if possible. Leptospirosis titer / PCR is recommended with empirical coverage for Leptospirosis. CBC Pathology review may be considered if evidence of septic peritoneal effusion and assuming normal coagulation profile, exploratory laparotomy with gross inspection of the gallbladder, common bile duct, and with hepatic biopsies may be indicated.



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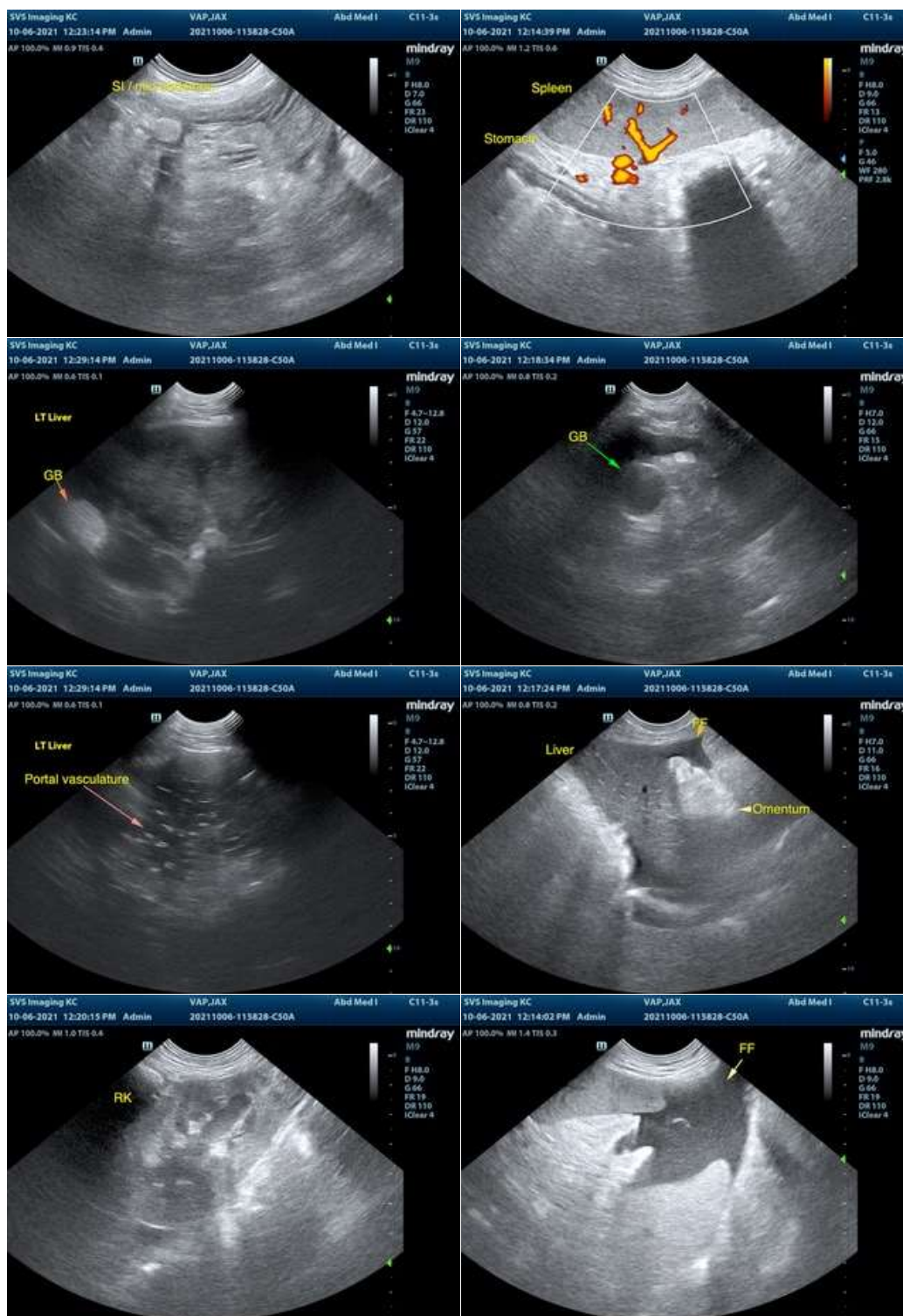
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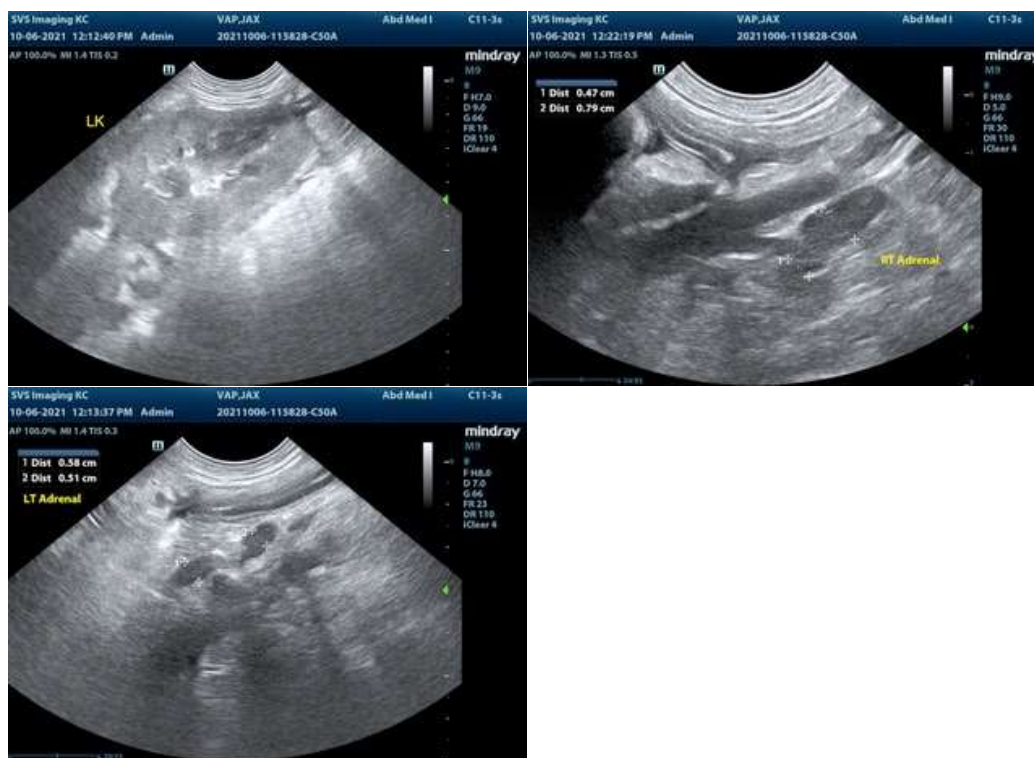
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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