

PATIENT

Bella Wappel

SPECIES

Canine

BREED

GSD

SEX

Spayed Female

AGE

10 years

WEIGHT

130 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Newton VH

REFERRING VET

Dr. Verhalen

INVOICE

12101

DATE

8/10/21

PRESENTING CLINICAL SIGNS

Hemoabdomen presumptive splenic mass no current meds

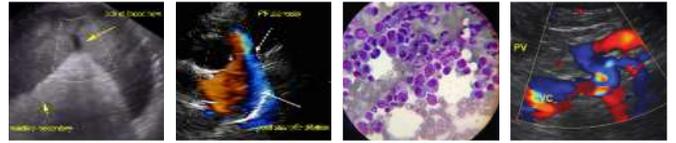
Abnormal PE/Chem/CBC/UA Results: HCT 23.8, PH 82k, PT 18.8, PTT 136.4, ALT 250, TBil 1.0

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT		2.5	NM	1.1	37.5	70.9	0.44
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis Base view (cm)	LVIDd Avg; 2D and m-mode short axis (cm)	LVIDs Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
PATIENT	NM	1.2	1.1		3.8	4.0	

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. The **left ventricle** presented thicknesses with linear contour and was not dilated nor restricted. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. Color doppler assessment of the tricuspid valve revealed minor tricuspid valve insufficiency. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** tract assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). Color doppler assessment of the pulmonic valve revealed tract pulmonic valve insufficiency. No visible **pericardial** or free pleura fluid was noted. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window.



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Urinary System

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The urinary bladder, trigone, and cystourethral junction 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.

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The area of the aortic trifurcation was free of pathology.

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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 pelvic dilation. The left kidney measured 8.0 cm in length. The right kidney measured 7.5 cm in length.

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Adrenal Glands

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No overt pathology was noted in the area of the left and right adrenal glands, although neither adrenal gland was definitively visualized owing to patient size, body conformation, and presence of peritoneal free fluid.

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Spleen

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A mass subjectively in the cranial spleen with secondary asymmetrical capsule expansion and disruption was present and measured approximately 7.0 cm in diameter. The parenchyma of the mass was heterogeneous to mixed echogenic with areas of cavitation. The possibility of multifocal masses cannot be definitively excluded. Generalized splenic parenchyma heterogeneity was present. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Regional perisplenic reactive mesentery was present. The possibility of possible splenic omental adhesions cannot be definitively excluded.

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Jessica Miller

Liver/ Gallbladder

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The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

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Gastrointestinal

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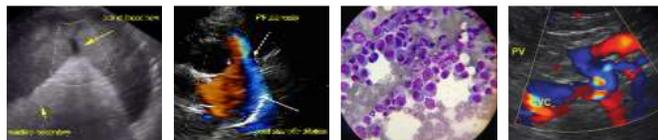
The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material.

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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.

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



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Pancreas

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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.

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Free Abdomen

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Subjective moderate peritoneal effusion was present.

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ULTRASONOGRAPHIC FINDINGS

SEX

Primary Findings

Spayed Female

- Overtly normal cardiac structure and function for age
- Mild tricuspid and tract pulmonic insufficiencies
- Cavitated splenic mass with potential for splenic masses
- Hepatic parenchymal remodeling
- Peritoneal effusion - suspect hemoabdomen

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Although histopathology is required for definitive diagnosis, the splenic mass to potential masses is most suggestive of neoplasia such as sarcoma or other. Benign pathologies are possible, yet considered less likely.

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Jessica Miller

Overt evidence of intraabdominal or pericardial metastasis was not definitively evident. However, the possibility of endosonographically evident metastasis or micrometastasis in these cases and given the patient's size cannot be overtly excluded. No anesthetic contraindications based on echocardiographic assessment. Assuming no evidence of pathology on three view chest radiographs, laparotomy with expectation towards splenectomy, gross inspection of the liver, and perisplenic omentum +/- hepatic biopsies may be considered.

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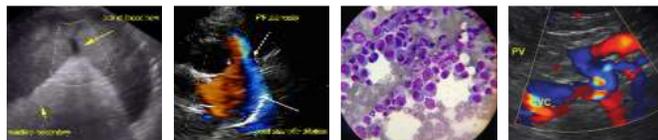
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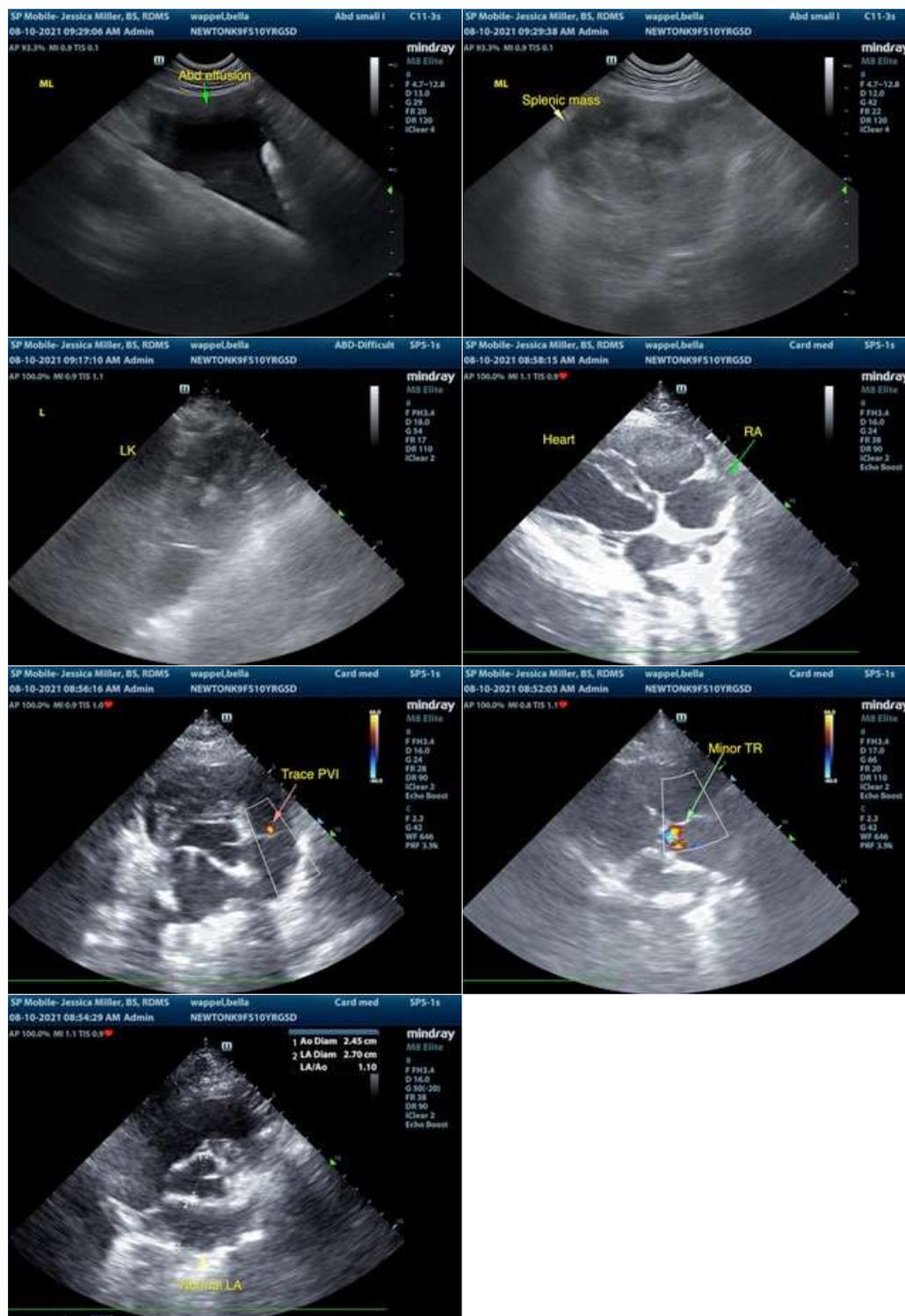
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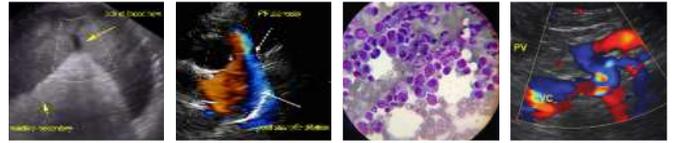
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



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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.

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