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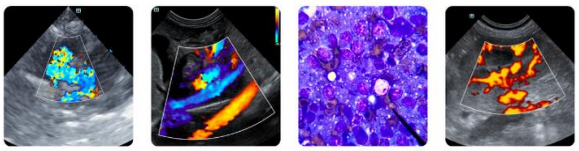

Clinical Sonography & Telecytology
Educational Teleconsultation Services™

PATIENT
Lulu Severt

SPECIES
Canine

BREED
Labradoodle

SEX
FS

AGE
8yr

WEIGHT
67lb

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

IMAGING PERFORMED BY
Kathleen Byrnes

HOSPITAL NAME
Animal Emergency Clinic High Country

REFERRING VET
Dr Watson

INVOICE
24565

DATE
04/22/2026

PRESENTING CLINICAL SIGNS

P presented to rdvm yesterday for lethargy, T 104.5F, abd tense, gave SQ fluids, and started Doxy

Presented to ER clinic today No improvement Temp 104 F, Painful when walking, taking very short careful steps, Painful during US- Gave Buprenorphine IV- P relaxed

BG 106

Abnormal PE/Chem/CBC/UA Results: rDVM Bloodwork Lyme Neg CBC WBC increased, Neutrophilia, Lymphopenia, BG low at 28 ER clinic Bld work 4dx neg K 3, NA 146, Glucose 106

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND HEART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO M-mode	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	--	2.5	--	1.3	34	66	0.36
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT**	**LAD** LA MAX 4 Chamber	**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				
PATIENT	NM	1.2	1.0	67lb	4.0	3.7	--

Cardiac Presentation

The echocardiogram in this patient demonstrated normal left atrial size based on 2 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. Mild centralized to eccentric MR on Doppler. 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. Normal measured LVOT velocity. 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. Mild TR on Doppler. 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). Normal measured RVOT velocity with minor pulmonic valve

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insufficiency on Doppler. No visible pleural effusion with minor volume pericardial effusion. The cranial mediastinum, heart base and pericardial regions were free of masses in the visible window. No evidence of arrythmia.

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 evidence of urine/lumen sediment, mineral, or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

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 7.0 cm in length. The right kidney measured 6.8 cm in length.

The area of the aortic trifurcation 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 0.73 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.62 cm width at the caudal 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

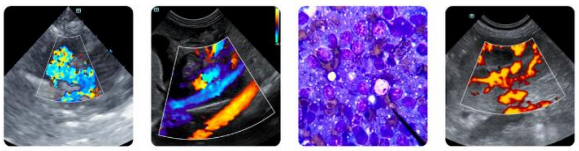
The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. Normal vascular volume. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. No evidence of gallbladder wall edema. The cystic and common bile ducts were normal.

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.

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 mechanical/metabolic ileus, obstruction or foreign material.

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



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Pancreas

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 was evident.

Free Abdomen

Solitary to potential intermittent enlarged medial iliac lymph nodes were present. These lymph nodes were homogenous, mildly hypoechoic and smoothly marginated. A normal width: length ratio was maintained (<0.5). An example of lymph node size was 3.6 cm x 0.97 cm. Minor perilymphatic hyperechoic omentum was present.

No evidence of omental lymphadenopathy or peritoneal effusion.

ULTRASONOGRAPHIC FINDINGS

Primary

- Normal cardiac structure /function
- Mild mitral valve insufficiency with concurrent mild tricuspid valve and pulmonic valve insufficiency
- Mild pericardial effusion, no evidence of cardiac tamponade- non-cardiogenic
- Mild medial iliac lymphadenopathy
- Normal spleen
- Normal gastrointestinal tract
- Normal liver / gallbladder
- Normal bilateral kidneys/ adrenal glands

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Aside from the non-specific medial iliac lymphadenopathy with considerations including reactive hyperplasia, non-specific lymphadenitis, with emerging to occult lymphatic neoplasia thought less likely, no evidence of abdominal pathology as an obvious contributing factor to the patient's clinical signs or pericardial effusion. Mild pericardial effusion secondary to hematologic, infectious or inflammatory causes is favored without a definitive right atrium / auricle mass visualized. An emerging to small tumor may not be sonographically evident and cannot be definitively excluded. Advanced echo or CT likely required for further clarification. The current degree of pericardial effusion precludes pericardiocentesis. Serial sonographic monitoring would be more conservative. No indication for cardiac medications.

Assuming normal clotting status and using 25ga needle, FNA cytology of accessible medial iliac lymph node +/- screening splenic FNA cytology could be considered to assess for occult disease. Correlation with musculoskeletal exam is recommended.

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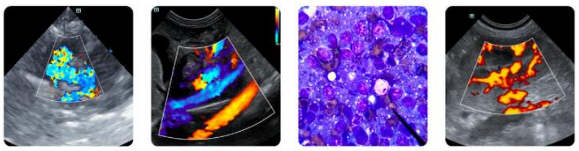

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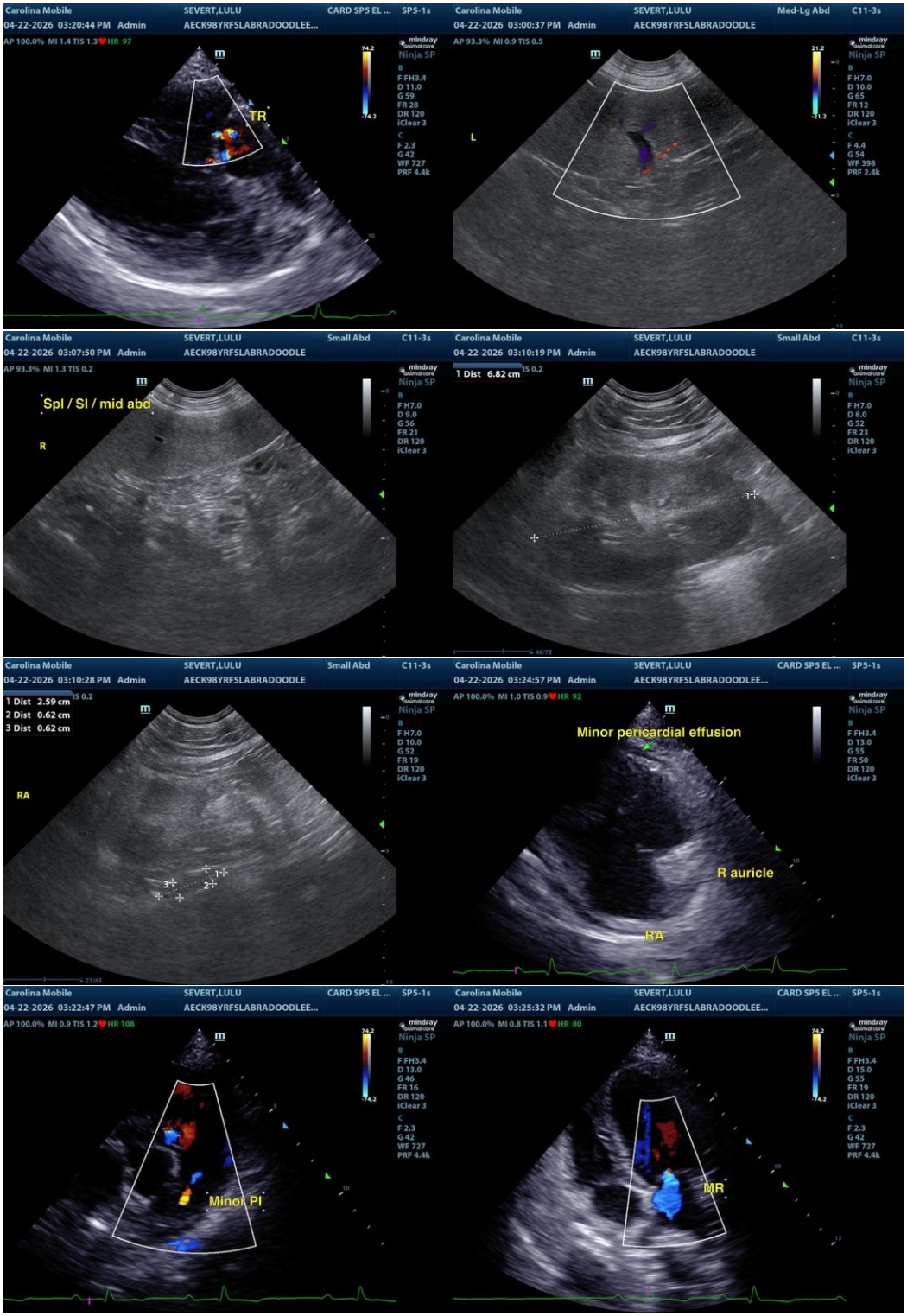

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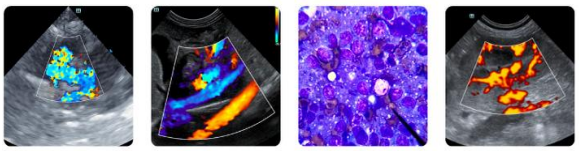

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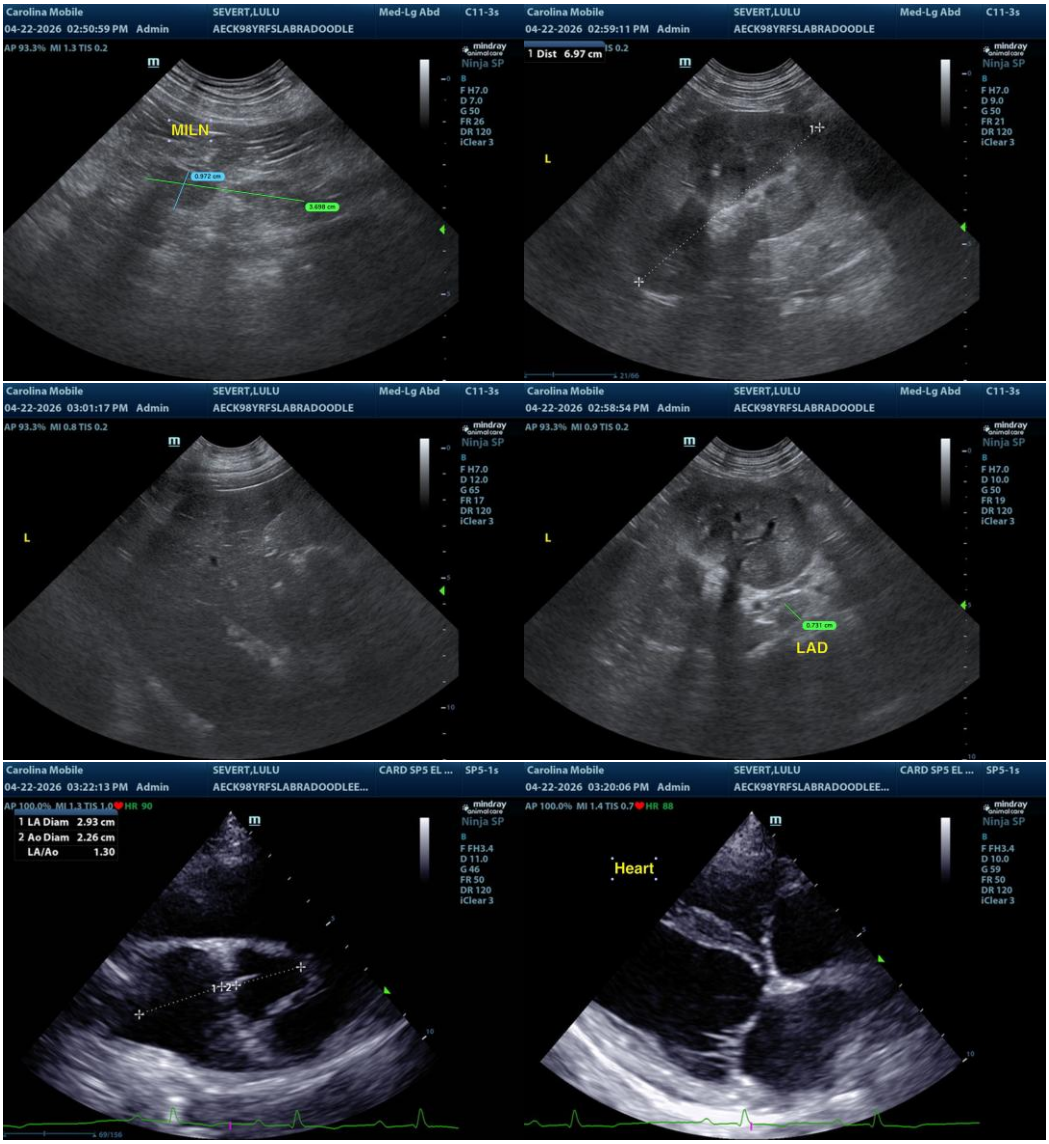

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
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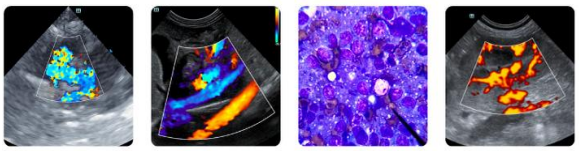

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