



PATIENT

Axl Lindstrom

SPECIES

Canine

BREED

Doberman

SEX

MN

AGE

8yr

WEIGHT

91.9lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Sarah Green

HOSPITAL NAME

Healing Spirit Animal
Wellness

REFERRING VET

Sarah Green

INVOICE 23545

DATE
01/14/2026

PRESENTING CLINICAL SIGNS

Presented due to bilateral mandibular and popliteal lymphadenomegaly. LN cytology consistent with large cell lymphoma. Thoracic radiographs showed mild cardiomegaly, no pulmonary nodules or evidence of intrathoracic lymphadenopathy.

Abnormal PE/Chem/CBC/UA Results: no murmur detected, lymphadenomegaly as noted above, CBC, chemistry, pending

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	--	--	--	1.2	30	58	0.6
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	NM	NM	91.9lb	5.2	4.8	--

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. No overt 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 borderline subnormal as evidenced by the fractional shortening measurement and subjective evaluation of the different regions of the myocardium. The left ventricular outflow tract demonstrated normal 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. No overt 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. No visible pericardial or free pleural fluid was noted. The cranial mediastinum and pericardial and extra-cardiac regions were free of masses in the visible window. No overt arrhythmia.

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



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

The area of the iliac trifurcation was free of pathology including no evidence of medial iliac or sublumbar lymphadenopathy or masses.

The area of the residual prostate appeared normal and 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 0.76 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 0.72 cm width at the caudal pole.

Spleen

The spleen was not definitively visualized. In the area of the spleen, a subcutaneous or possible intra-abdominal area of fat or potential lipoma was present.

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. 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.

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

No peritoneal effusion was present.

Generalized normal omental echogenicity was present.



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A solitary mildly prominent, homogenous hypochoic mid-abdomen mesenteric lymph node was visualized measuring 1.5 cm in diameter. No evidence of perilymphatic inflammation. Additional mesenteric lymphadenopathy was not visualized.

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ULTRASONOGRAPHIC FINDINGS

Primary

- Normal cardiac structure / function with borderline LV hypocontractility
- Sonographically unremarkable non-congested liver
- Normal visualized gastrointestinal tract
- Solitary mildly prominent mesenteric lymph node - non-specific
- Subjective subcutaneous or left intra-abdominal fat or lipoma area of spleen

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The lack of left or right heart chamber enlargement despite borderline subnormal LV contractility indicates the current and future risk of complication is low. The borderline subnormal LV contractility is non-specific with potential for patient variant, athletic state, hypothyroidism, systemic disease without current DCM criteria met. Potential for early infiltrative cardiac neoplasia i.e. lymphoma given patient history is not definitively excluded. No current indication for cardiac medication assuming patient is non-clinical, however serial sonographic monitoring of the heart going forward is advised.

WEIGHT

91.9lb

No overt sonographic evidence of definitive or multi-centric abdominal primary or metastatic neoplastic criteria with solitary visualized non-specific mild mesenteric lymphadenopathy. Likewise sonographic monitoring of the abdomen and lymph node for evidence of progression is recommended. Correlation with pending lab work is recommended.

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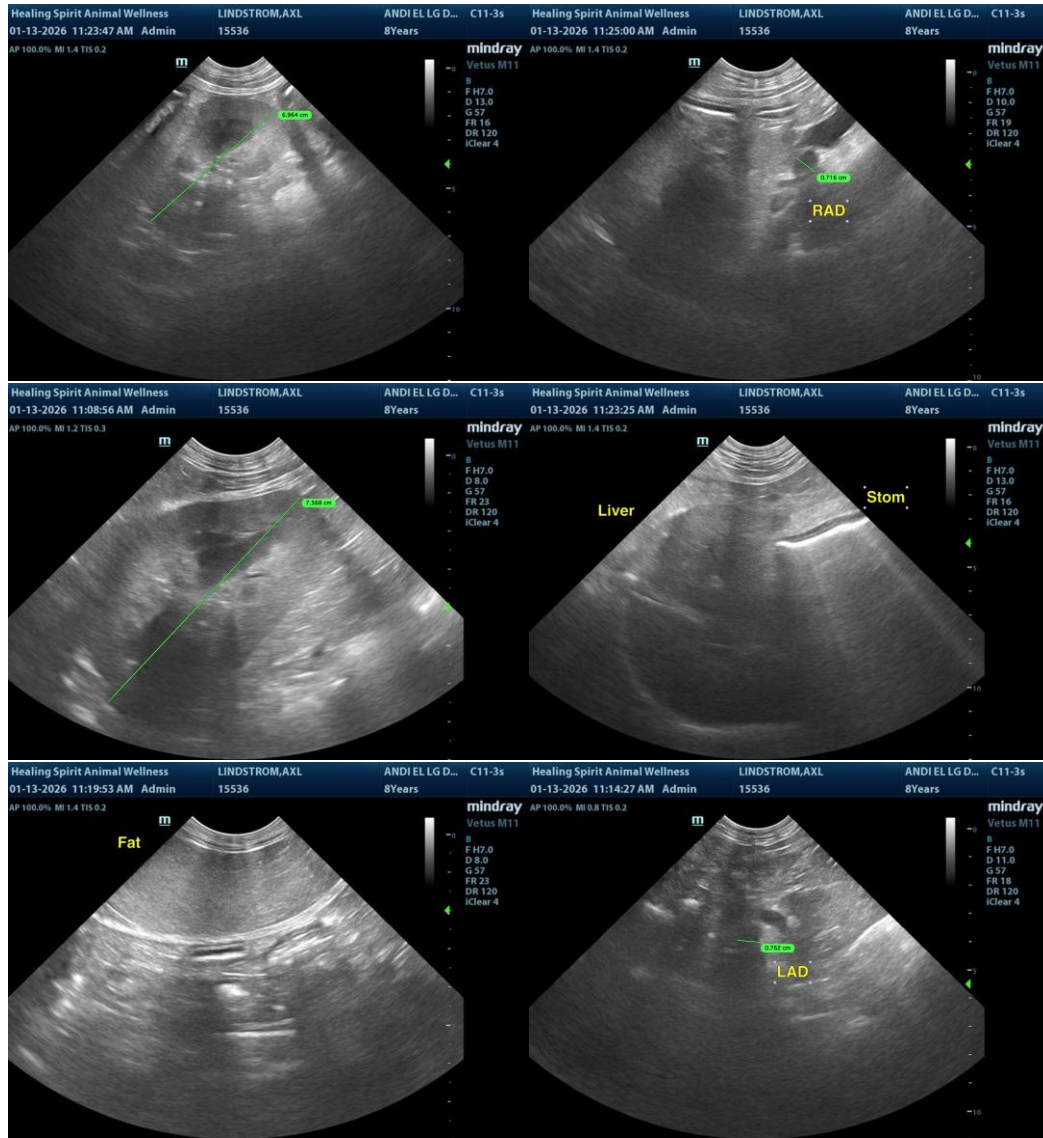
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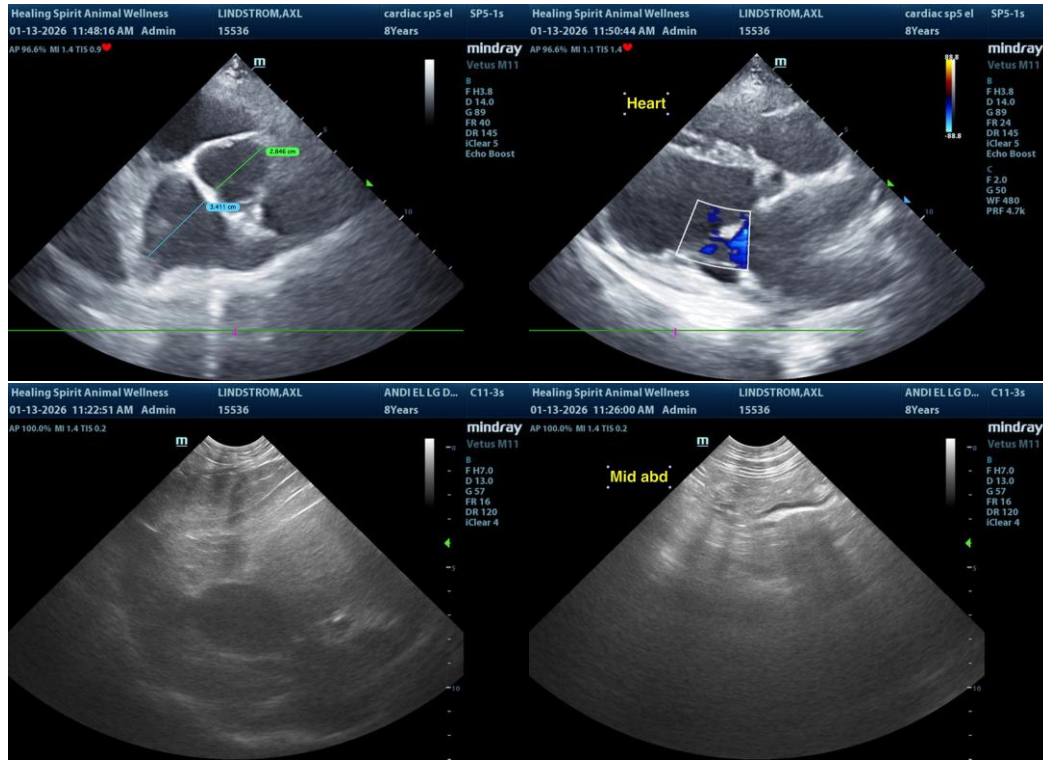
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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