



PATIENT PRESENTING CLINICAL SIGNS

PATIENT Pearl Gordon History: Has HM. HX of regenerative anemia HCT trending. HX of dry cough 2-3 times daily. Severe dental DZ Grade 4/6 HM

SPECIES Canine
Meds- cradelio, glucosamine.

BREED Boston Terrier Mix
Abnormal PE/Chem/CBC/UA Results: HX lyme pos. HCT-31 HGB-10.3 MCV-78 Retic-273 mono-1.796 TP-7.6 Glob-4.4 T4-0.8 Ft4-2 tsn-0.38 UA ph-6.5 prot-1+ cystB-450 SG-1.040

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

SEX

Female Spayed

AGE

12 yrs

WEIGHT

18.5 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Kerri Becker

HOSPITAL NAME

Livingston AH

REFERRING VET

Dr. Messina

INVOICE

12799

DATE

11/13/25

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	5.0	2.2	--	1.2	44	76	0.2
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	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	141	1.0	0.82	--	2.7	2.4	--

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 2 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented mild thickening consistent with endocardiosis. Doppler indicated moderate eccentric insufficiency. MR velocity measured 5.0 m/s. 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 or chamber overload. **Tricuspid** valvular assessment demonstrated mild thickening with mild TR noted on doppler. TR velocity measured 2.2 m/s. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No visible **pericardial** or



PATIENT

free pleura fluid was noted. No echographically detectable evidence of cardiac / pericardial tumors was visible.

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Urinary System

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The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm 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.

Canine

BREED

Boston Terrier Mix

The area of the aortic trifurcation was free of pathology.

SEX

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 to moderate loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 4.8 cm in length. The right kidney measured 5.4 cm in length.

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Adrenal Glands

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The left adrenal gland was indistinctly visualized exhibiting overtly normal size, position and shape subjectively measuring 0.63 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 0.57 cm width at the caudal pole.

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Spleen

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

Large expansive splenic mass occupying majority of the mid to cranial abdomen with caudal hepatic effacement. The mass exhibited non-homogeneous parenchyma essentially isoechoic to adjacent intact spleen measuring ~ 12.0 cm in diameter. The visualized intact spleen exhibited homogeneous parenchyma and symmetrical capsule contour.

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Liver

Kerri Becker

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 mild, non-organized, echogenic, nonmineralized biliary sludge. The cystic duct and common bile ducts were normal without evidence of dilation.

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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.

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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

Suspect mildly non-homogenous swollen right cranial abdomen lymph node was present measuring 2.7 cm in diameter. No additional visualized lymphadenopathy. No evidence of significant peritoneal effusion or splenic mass rupture.

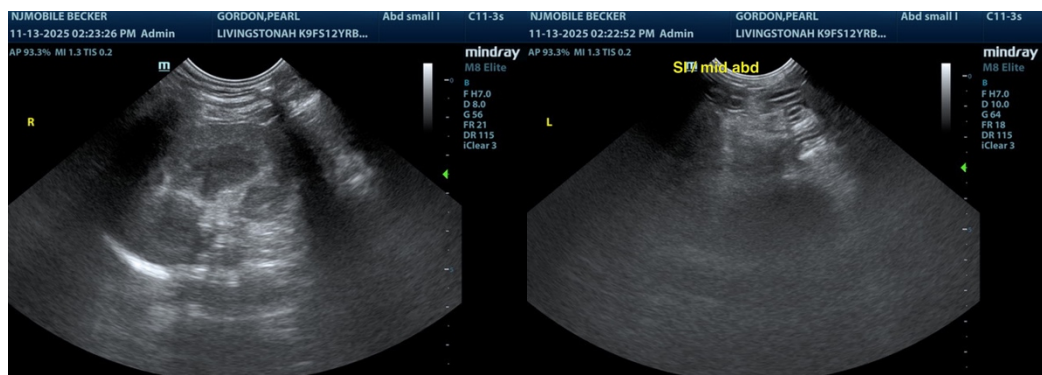
ULTRASONOGRAPHIC FINDINGS

- Compensated mitral valve disease (B1)
- Mild TV insufficiency – no obvious clinical pulmonary hypertension
- Large splenic mass
- Mild hepatic parenchymal remodeling
- Mild gallbladder debris (non-mucocele)
- Bilateral chronic renal changes
- Suspect right cranial abdomen mildly swollen non-homogeneous lymph node

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The splenic mass is nonspecific with considerations including hyperplasia, hematopoiesis, granuloma, splenitis, or neoplasia (sarcoma, round cell neoplasia, other). The suspect right cranial abdomen lymph node may indicate hyperplasia, inflammation or metastasis, unspecified right cranial omental nodule less likely hepatic nodule not excluded.

The lack of LA enlargement indicates the current and future risk of complications secondary to MR is low without overt clinical pulmonary hypertension or chamber enlargement, the coughing in this patient appears non-cardiac in origin. Correlation with 3-view chest radiographs recommended. No current indication for cardiac medication. If no pathology on 3-view chest radiographs, splenectomy with gross in section of the suspect right cranial abdomen lymph node and +/- biopsy resection may be considered. Cardiac anesthetic risk is considered mild. Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.





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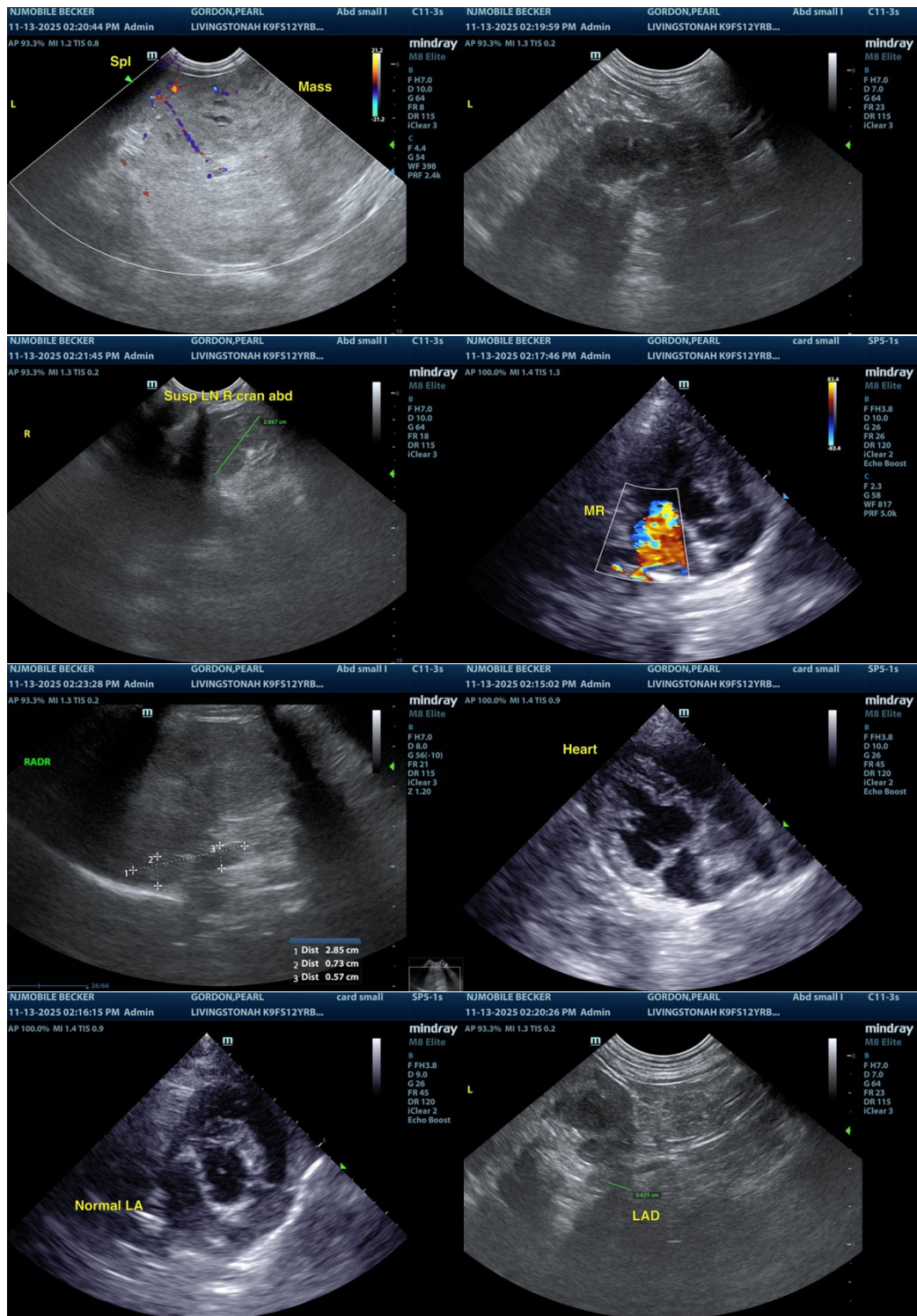
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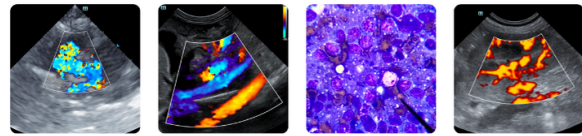
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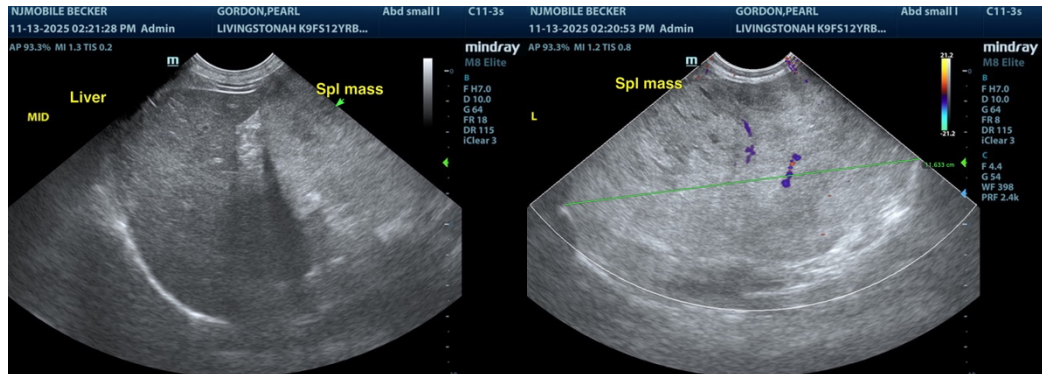
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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