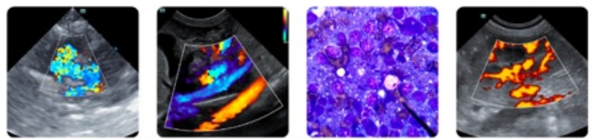


PATIENT
Cooper Messinger

SPECIES
Canine

BREED
Labrador Retriever

SEX
Neutered male

AGE
7 years

WEIGHT
89 lbs

INTERPRETED BY
Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY
Dr. Jenni Tudini
MRCVS, SDEP Cert

HOSPITAL NAME
East Aurora VH

REFERRING VET
Dr. Seward

INVOICE
71320

DATE
2/5/26

PRESENTING CLINICAL SIGNS

- Patient recently examined during annual exam and had wellness bloodwork performed.
- Following a return of ProBNP test that was elevated patient was subsequently scheduled for an echocardiogram.
- Patient is asymptomatic and is VERY excitable during exams
- Exam unremarkable - Blood Pressure - normotensive - CBC: unremarkable - Biochem: ProBNP 1261 (0-900) - 4Dx: NEG x 4 - Fecal: NEG

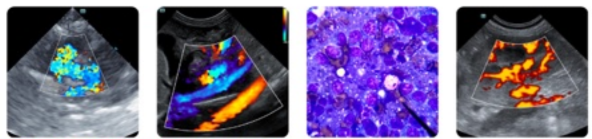
ULTRASONOGRAPHIC EXAMINATION OF THE HEART

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. Trivial **mitral** valve insufficiency was noted. 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. Trivial **tricuspid** insufficiency was noted. 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). 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.

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO	LA/AO (Heart Base)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	-	-	1.1	-	28	55	0.4
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT**	**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	90	NM	NM	89 lbs	4.3	3.46	

ULTRASONOGRAPHIC FINDINGS

Trivial mitral and tricuspid insufficiency. Stage B1 valvular disease, minor.



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Blood pressure measurements are indicated to ensure that underlying systemic hypertension is not playing a role. Recheck echocardiogram is recommended in 6 months or earlier if murmur grade increases, however, the valvular disease is trivial at this point. There was no significant cardiac dysfunction present.

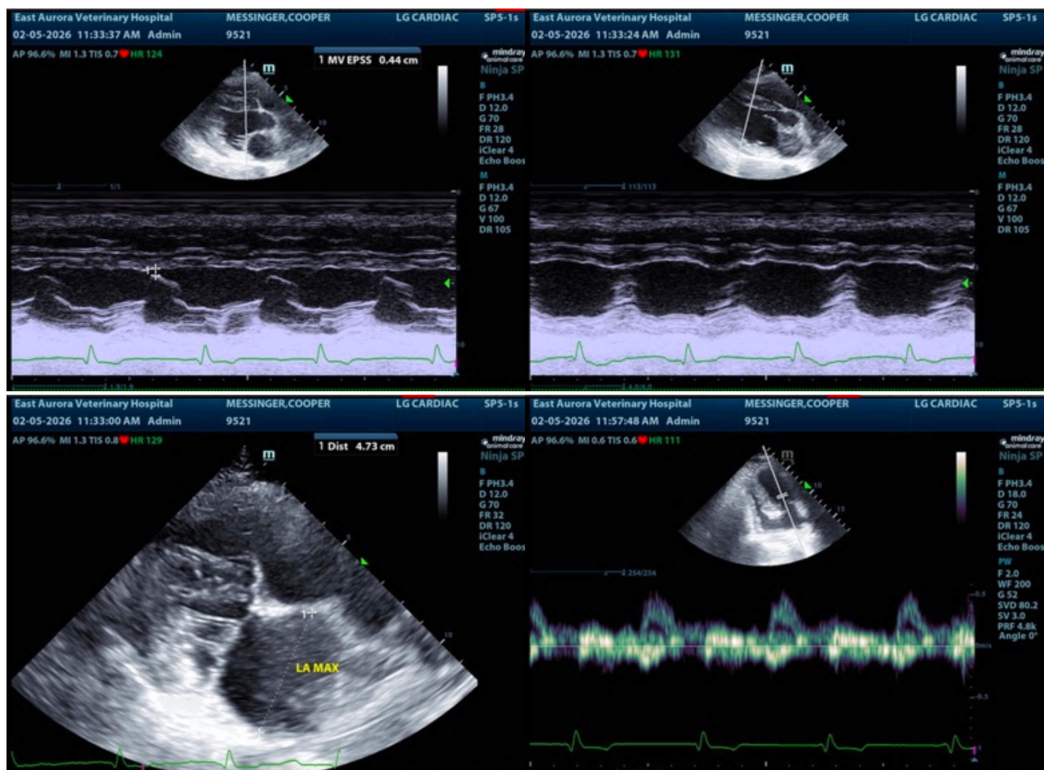
Bio markers such as NT-proBNP are screening tests for myocardial stress. A positive test (>100 pmol/liter) does not mean that cardiac disease is necessarily present.

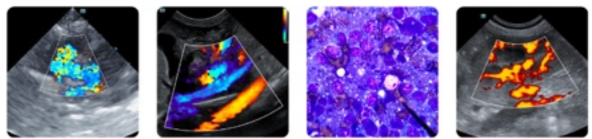
BNP false +can occur in hyperthyroid, renal insufficiency, severe airway disease, systemic hypertension and potentially other systemic influences.

A negative result largely rules out clinically relevant myocardial disease but does not rule out occult cardiomyopathy.

In light of pleural effusion, diluting the fluid 1:1 and testing BNP on the fluid is useful to assess if the pleural effusion is cardiogenic in nature.

Ultrasound, however, is the gold standard as far as evaluating clinically significant and occult heart disease





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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.

Eric Lindquist, DMV, DABVP (CFM), Cert. IVUSS, CEO of SonoPath.com

info@SonoPath.com