



## PATIENT

Remy Morgan

## SPECIES

Canine

## BREED

Mix

## SEX

MN

## AGE

9 years

## WEIGHT

69 lbs.

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Karen Ebersole,  
DVM, DABVP  
(Canine and Feline)

## HOSPITAL NAME

Scanvet

## REFERRING VET

Dr. Norman

## INVOICE

15699

## DATE

12/21/22

## PRESENTING CLINICAL SIGNS

Was on a GF diet, attempted diet change, but had GI upset so returned to GF diet. On Taurine 1,568mg, Cerenia, Pepcid, Gabapentin, Prozac and Cytoint injections.

Abnormal PE/Chem/CBC/UA Results: Grade 3/6 systolic heart murmur. Alb 2.5.

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

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	5.1			1.27	28.8	56	0.25
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	147	1.75	1.4		4.0	3.9	

## 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 suggestive of mild endocardiosis. No evidence of valvular prolapse. Doppler indicated measurable primarily eccentric to mildly centralized insufficiency. 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 mildly subnormal yet likely adequate 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 was present. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology. 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). Normal measured RVOT velocity was present. No visible **pericardial** or free pleura fluid was noted. No echographically detectable evidence of infiltrative disease was visible. The cranial **mediastinum and pericardial regions** were free of masses in the visible window. No arrhythmia was present.



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## ULTRASONOGRAPHIC FINDINGS

- Overall normal cardiac structure and likely function with borderline to mild decreased LV contractility - patient variant, athletic state, at times hypothyroidism, or systemic disease may present in this manner, DCM criteria was not met
- Compensated MR

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is most consistent with mild chronic degenerative valvular changes with secondary primarily eccentric to mildly centralized MR. The lack of LA / LV enlargement indicates that the hemodynamic effects of the MR at this stage are low and indicates that the risk of current and future complications secondary to MR at this time is low. No evidence of DCM criteria, given the patient's dietary history. No other clinical issues such as pulmonary hypertension.

In a nonclinical patient without evidence of chamber enlargement, cardiac medications are not indicated. Ideally, consideration for diet change to a more traditional diet if tolerated is suggested. Prognosis is variable and sonographic monitoring is recommended. Recheck echocardiogram is suggested in 6 months, sooner if clinical signs arise.

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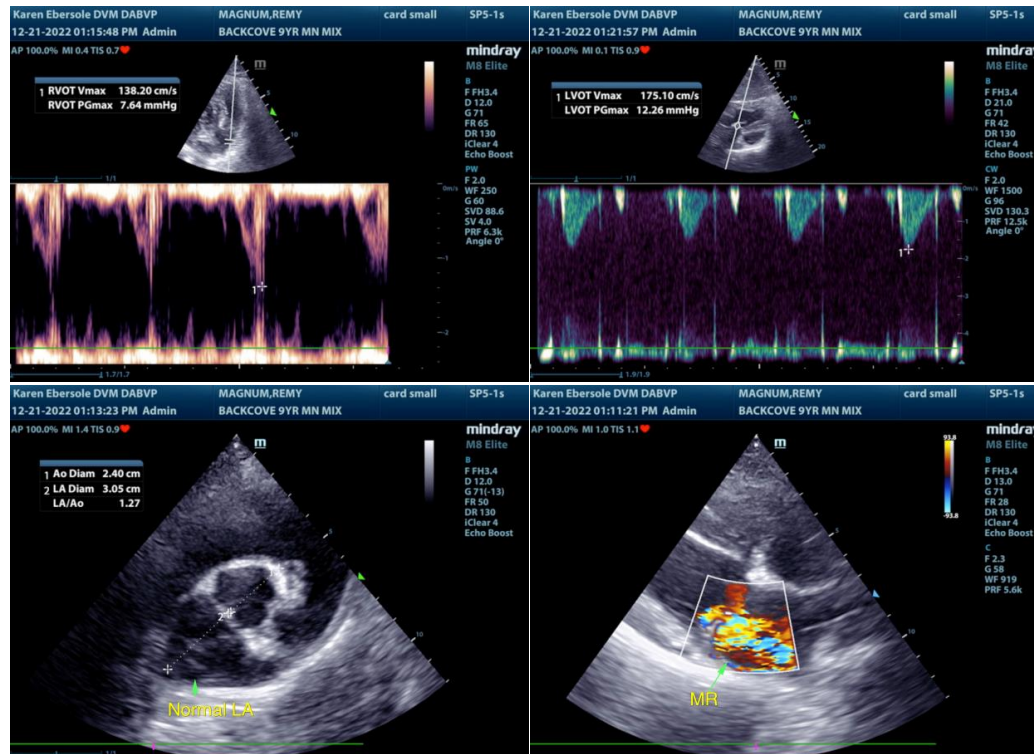
Dr. Norman

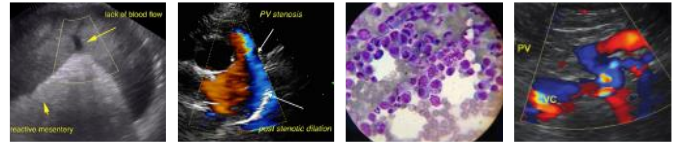
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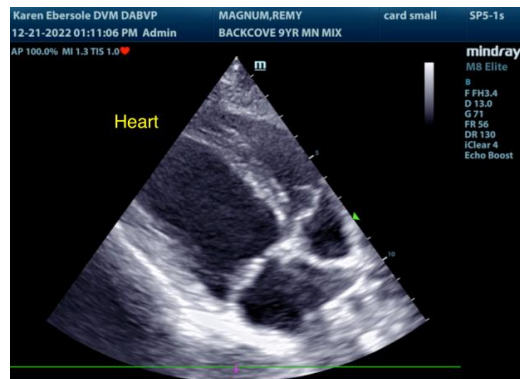
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**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

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