



## PATIENT

Valentine Leaf

## SPECIES

Canine

## BREED

Papillion Mix

## SEX

MN

## AGE

13

## WEIGHT

7.5

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Dr. Brita Kiffney

## HOSPITAL NAME

Northshore  
Veterinary hospital

## REFERRING VET

Dr. Brita Kiffney

## INVOICE

13545

## DATE

3/24/22

## PRESENTING CLINICAL SIGNS

Heart murmur grade 3/6 systolic murmur PMI left apex, elevated cardiac bnp, NO cough no inappetence, no exercise intolerance.

Abnormal PE/Chem/CBC/UA Results: BNP 1353

## 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			1.7	1.42	39.1	72.9	0.22
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	NM	1.2	0.8		2.2	2.3	

## Cardiac Presentation

The echocardiogram in this patient demonstrated minor enlarged **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. 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 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). 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.

## ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B1)



## PATIENT

Valentine Leaf

## SPECIES

Canine

## BREED

Papillion Mix

## SEX

MN

## AGE

13

## WEIGHT

7.5

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Dr. Brita Kiffney

## HOSPITAL NAME

Northshore  
Veterinary hospital

## REFERRING VET

Dr. Brita Kiffney

## INVOICE

13545

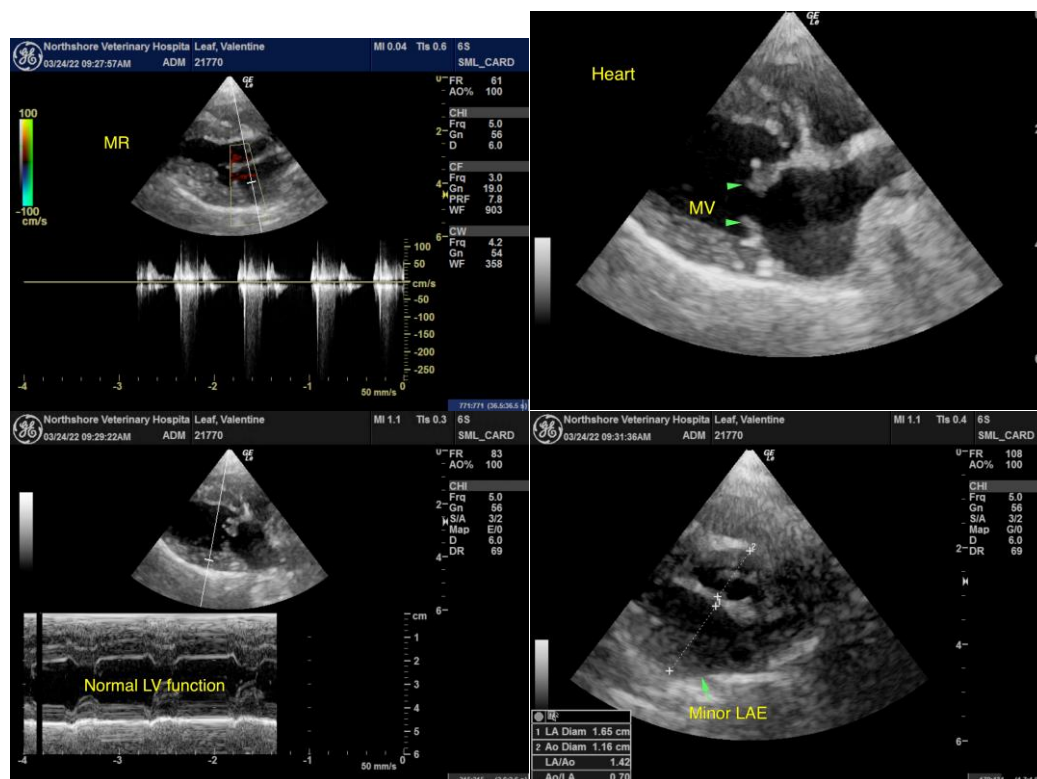
## DATE

3/24/22

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The echocardiogram is consistent with chronic degenerative mitral valve changes with secondary insufficiency as the primary cause of the murmur. The lack of significant left atrium or left ventricle enlargement indicates that the hemodynamic effects of the murmur at this stage are low and therefore the risk of complication at this time is likewise low.

In a nonclinical patient without evidence of significant chamber enlargement, cardiac medications are not specifically indicated. No other clinical issues such as LV systolic dysfunction or evidence of clinical pulmonary hypertension were noted. Serial sonographic monitoring is recommended for further prognosis. Recheck echocardiogram is suggested in 6 months, sooner if clinical signs arise.



**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