



## PATIENT

Benji DiPentima

## SPECIES

Canine

## BREED

Chihuahua

## SEX

MN

## AGE

14 years

## WEIGHT

-

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Kelly Vazquez

## HOSPITAL NAME

Ramapo Valley AH

## REFERRING VET

Dr. Gary Duhr

## INVOICE

13164

## DATE

1/26/22

## PRESENTING CLINICAL SIGNS

Patient presents for mild to moderate cardiomegaly on pre-dental chest radiographs. No current meds.

## 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			1.15	1.26	41	74.6	0.1
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	85	1.0	0.8		1.7	1.85	

## Cardiac Presentation

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

### Primary Findings

- Overtly normal cardiac structure and function



## PATIENT

- Minor MR

Benji DiPentima

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

## SPECIES

Canine

No evidence of structural or functional cardiomyopathy with mild vegetative mitral valve changes and secondary minor mitral valve insufficiency. The mitral valve insufficiency is not likely audible. The lack of left atrium enlargement indicates that the risk owing to mitral valve insufficiency is low. No indication for cardiac medications was evident. No anesthetic contraindications based on this study were noted.

## BREED

Chihuahua

Conservative monitoring at this stage would be appropriate. Recheck echo is suggested in 6-12 months, sooner if clinical signs suggestive of heart disease arise.

## SEX

MN

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.

## AGE

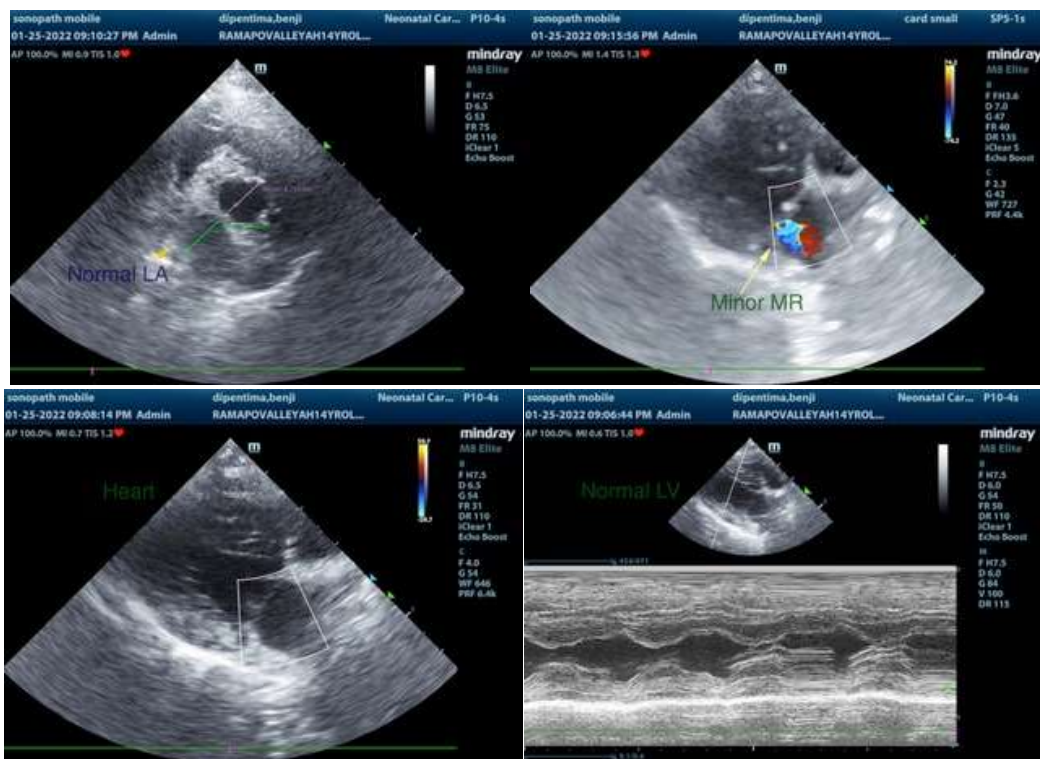
14 years

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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.**

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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.

## DATE

1/26/22

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
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