



## PATIENT

Karma McIntosh

## SPECIES

Canine

## BREED

Dachshund

## SEX

F/S

## AGE

11 years

## WEIGHT

8 kg

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Dave Stasiuk RDMS,  
RDCE

## HOSPITAL NAME

Silverado VC

## REFERRING VET

Dr. K.D. Marahar

## INVOICE

14881

## DATE

8/22/23

## PRESENTING CLINICAL SIGNS

Pre dental cardiac ultrasound.

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

| CANINE<br>CARDIAC<br>PARAMETERS | MR<br>VMAX<br>(m/s) | TR<br>VMAX<br>(m/s) | LA/AO<br>(Boon<br>method) | LA/AO<br>(Heart Base;<br>Swe) | FS<br>(%)                                | EF<br>(%)  | EPSS<br>(cm)   |
|---------------------------------|---------------------|---------------------|---------------------------|-------------------------------|--|--|--|
| NORMAL<br>PARAMETER             | 4.5-5.5             | <2.7                | 1.3                       | <1.3                          | 28-40                                    | 40-100   | <0.6   |
| PATIENT                         |                     |                     |                           | 1.35                          | 52                                       | 85   | 0.1  |
| CANINE<br>CARDIAC<br>PARAMETERS | HR<br>(BPM)         | AV<br>VMAX<br>(m/s) | PV<br>MAX<br>(m/s)        | BODY<br>WEIGHT<br>(kg)        | LA<br>2D short axis<br>Base view<br>(cm) | LVIDd<br>Avg; 2D and m-<br>mode short axis<br>(cm) | LVIDs<br>Avg; 2D and<br>m-mode<br>short axis<br>(cm) |
| NORMAL<br>PARAMETER             | 50-100              | 0.7-1.7             | 0.7-1.6                   |                               |  |  |  |
| PATIENT                         | NM                  | 1.4                 | 1.0                       |                               | 2.6                                      | 2.6  |  |

### 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 mild 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

- Normal echocardiogram
- Mildly thickened mitral valve - consistent with endocardiosis



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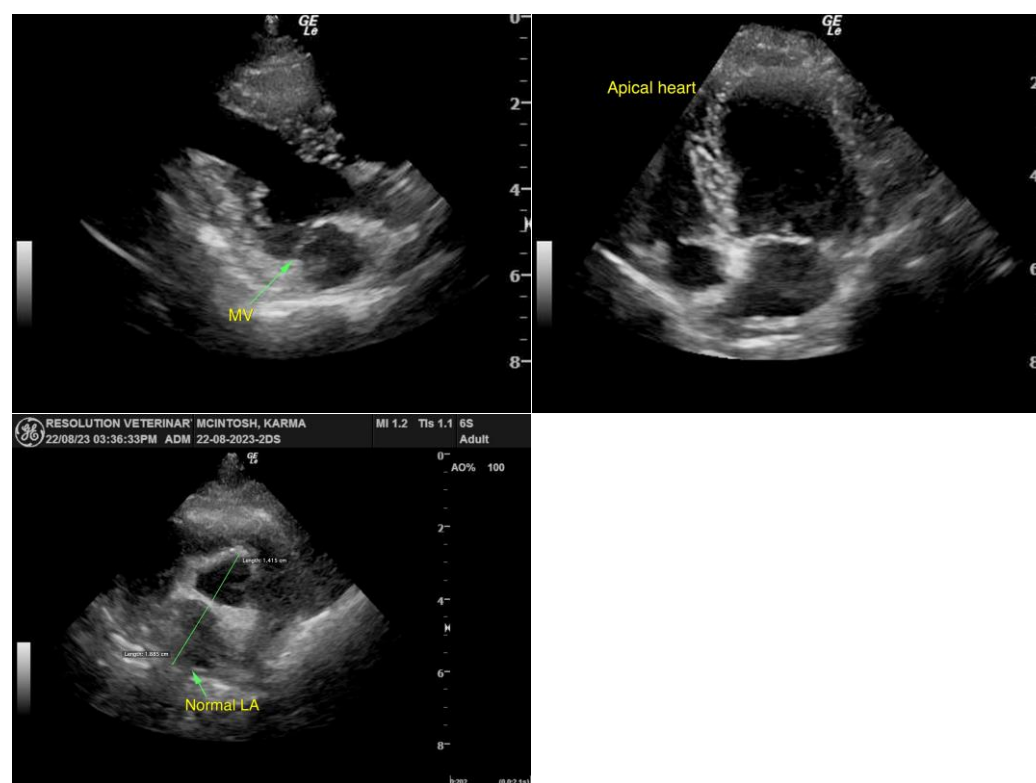
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There was no evidence of structural or functional cardiomyopathy including no evidence of left or right heart chamber enlargement, LV systolic dysfunction, or clinical pulmonary hypertension. There was no evidence of significant MR on Doppler, although if a mild or low-grade murmur is present in this patient, mild mitral valve insufficiency would be expected. Regardless, the lack of left or right heart chamber enlargement indicates that the heart is stable and is not indicative of medical therapy. There are no anesthetic contraindications. Monitoring for the development of a murmur, if not currently present, and going forward is suggested with recheck echocardiogram recommended in 8-12 months, sooner if non-reported murmur arises or if clinical signs consistent with heart disease are noted.

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.



**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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