


PATIENT PRESENTING CLINICAL SIGNS

CrackerJack Marquez History: Grade 3/6 murmur. Pre anesthesia.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART
SPECIES

Canine

BREED

Shih Tzu

SEX

MN

AGE

15 yrs

WEIGHT

3.9 kg

| 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 | <1.3 | 28-40 | 40-100 | <0.6 |
| PATIENT | | | 1.1 | 1.32 | 43.5 | 78.1 | 0.2 |
| 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 | | | | |
| PATIENT | NM | 1.0 | 0.9 | | 2.5 | 2.3 | |

Cardiac Presentation
INTERPRETED BY

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

IMAGING PERFORMED BY

Dave Stasiuk

HOSPITAL NAME

 Resolution Veterinary
 Ultrasound

REFERRING VET

Signal Hill Animal Clinic

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 vegetative thickening consistent with endocardiosis more prominent in the septal leaflet without evidence of valvular prolapse. Doppler indicated eccentric insufficiency. The left ventricle presented thicknesses with linear contour and was not dilated nor restricted. The myocardium presented mild nonuniform echogenicity consistent with age related myocardial changes without 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.

INVOICE

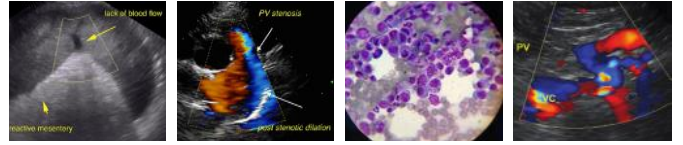
10619ag

DATE

05/13/2022

ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B1)



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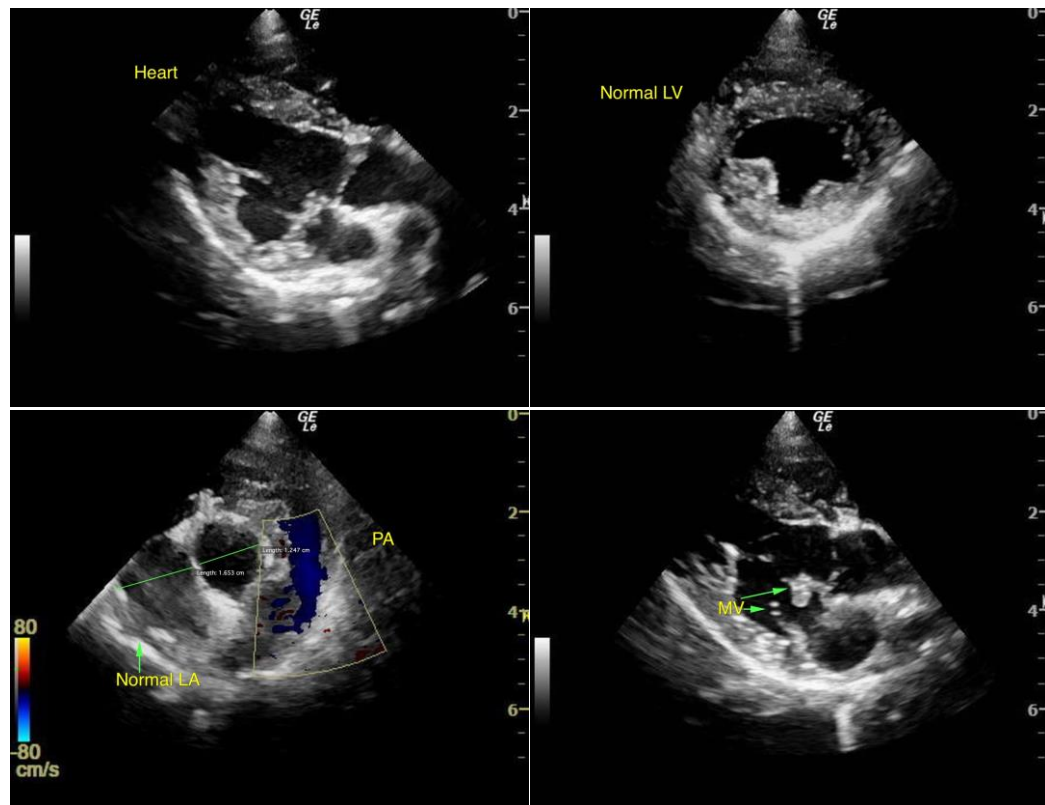
REFERRING VET

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is most consistent with chronic degenerative valvular changes and secondary eccentric mitral valve insufficiency. The lack of LA enlargement indicates that the risk of complication is relatively low, however prognosis is highly variable and serial sonographic monitoring is recommended for further prognosis. In a nonclinical patient without evidence of significant chamber enlargement, cardiac medications are not indicated. No anesthetic contraindications. The following protocol is suggested. Potentially this patient may be at increased risk for fluid overload, judicious IVF use under anesthesia is recommended. Recheck echocardiogram in 6 months, sooner if clinical signs arise.

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.



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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



PATIENT

can be of any further assistance please contact me.

CrackerJack Marquez

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

info@SonoPath.com

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