



PATIENT

Chino Ferro

SPECIES

Canine

BREED

Dachshund/Mix

SEX

MN

AGE

11 years

WEIGHT

15 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Kim Liedberg

HOSPITAL NAME

SVS Imaging WI

REFERRING VET

Dr. Vivek, Evervet

INVOICE

12818

DATE

12/14/21

PRESENTING CLINICAL SIGNS

Chino presented of an assessment of a heart murmur. No coughing but he will breathe heavier and pant more after activity. No collapsing. Good energy and appetite. Grade 4/6 left apical systolic regurgitant murmur. BCS 4/9, MCS 3/3 HR 140 bpm. Regular rhythm with strong, synchronous symmetric pulses. Respiratory System: RR 36 brpm normal respiratory effort. Clear lung sounds Previous echocardiogram on 4/2/21 revealed a chronic valvular degeneration. moderate (ACVIM Stage B2) Mitral regurgitation - moderate Chino is on Pimobendan 2.5mg orally every 12 hours.

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			2.2	1.75	49	84	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	BELOW	BELOW	BELOW	BELOW
PATIENT	140	1.1	0.9		3.9	3.3	

Cardiac Presentation

The echocardiogram in this patient demonstrated moderately enlarged **left atrial** size based on 3 different LA measurement methods. Deviation of the atrial septum towards the right atrium, indicative of increased left atrial pressure, was present. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable eccentric insufficiency. The **left ventricle** presented thicknesses with linear contour with increased left ventricle volume. 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.



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ULTRASONOGRAPHIC FINDINGS

Chino Ferro

Primary Findings

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- Chronic mitral valve disease (ACVIM B2)

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Dachshund/Mix

Assuming no evidence of pulmonary edema on thoracic radiographs, the echocardiogram is consistent with previous diagnosis of stage-B2 chronic mitral valve disease. No other clinical issues such as systolic dysfunction or overt clinical pulmonary hypertension were noted. Given the left atrium enlargement and overall increased left heart volume, continued Pimobendan at current dose is recommended. A weak diuretic, again assuming no evidence of pulmonary edema, such as spironolactone 1.0-2.0 mg/kg PO BID could also be considered. Omega-3 fatty acids supplementation and mild salt restriction may also prove beneficial. If the patient exhibits respiratory abnormalities following activity, mild exercise restriction would be appropriate. The moderate left atrium enlargement indicates that the risk going forward is elevated. Recheck echocardiogram is suggested in 6 months, sooner if evidence of congestive left-sided heart disease is noted. Baseline monitoring of resting respiration rate at home is recommended.

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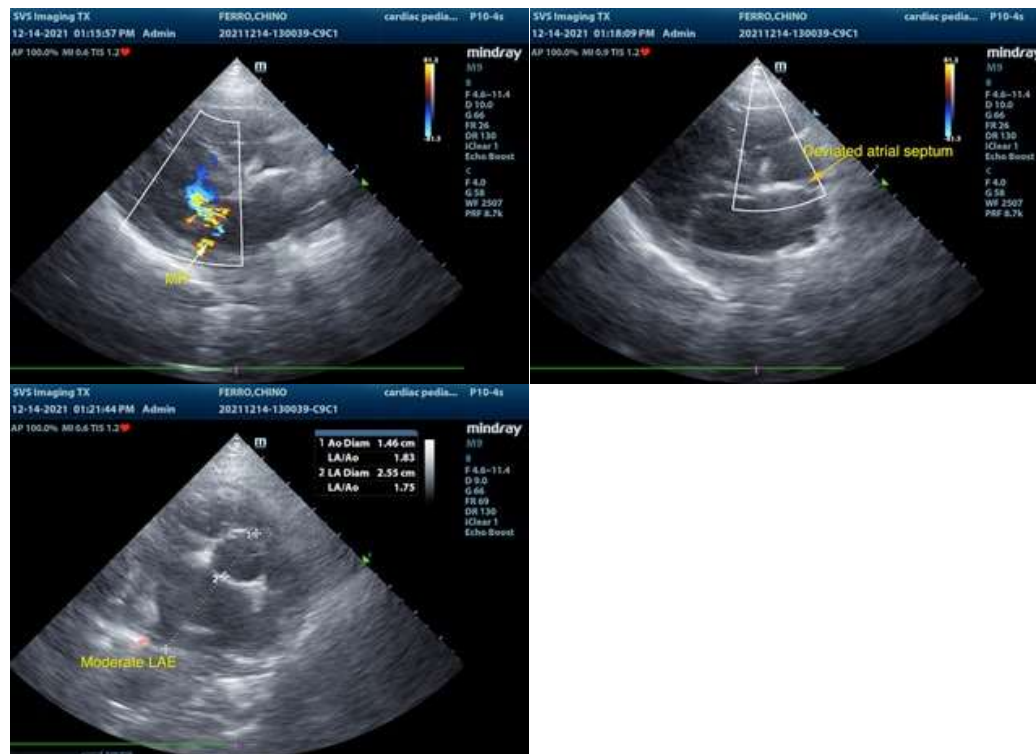
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not



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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.

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