



PATIENT

Lily Acevedo

SPECIES

Canine

BREED

Chihuahua Mix

SEX

Spayed Female

AGE

9 years 11 months

WEIGHT

8.9 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Budd Lake AH

REFERRING VET

Dr. Verhalen

INVOICE

12361

DATE

10/14/21

PRESENTING CLINICAL SIGNS

Grade IV/VI heart murmur noted. No murmur noted 8/30 or 9/7. Had dental procedure- recovered from anesthesia well. Possible syncopal episode vs seizure 10/10/21.

Abnormal PE/Chem/CBC/UA Results: ALKP 143, BUN 51, Creat 1.5, Acuplex neg

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			1.9	2.0	54	89	0.13
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	158	1.0	<1.0		3.3	2.66	

Cardiac Presentation

The echocardiogram in this patient demonstrated mild to moderate enlarged **left atrial** size based on 3 different LA measurement methods. Mild deviation of the interatrial septum towards the right atrium indicative of elevated left atrial pressure was present. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. No evidence of valvular prolapse or chordae tendineae rupture. Doppler indicated measurable eccentric insufficiency. The **left ventricle** presented thicknesses with linear contour with subjective mild increased left ventricle volume. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was mildly increased as evidence by the fractional shortening measurement in the graph 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

Primary Findings

- Chronic mitral valve disease (ACVIM B2)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is chronic degenerative valvular changes with secondary eccentric mitral valve insufficiency. The mild to moderate left atrium enlargement with deviation of interatrial septum indicates that the risk of future complication is elevated, although prognosis at this time is highly variable.

Based on Epic Study Criteria, Pimobendan 0.3 mg/kg PO BID is warranted. Spironolactone may be considered as a weak diuretic if clinical concern for pulmonary edema. The potential for paroxysmal or arrhythmia as a potential cause of syncopal episode or seizure cannot be definitively excluded. ECG assessment is suggested. No overt systolic dysfunction or evidence of clinical pulmonary hypertension was noted. Recheck echocardiogram is suggested in 6 months, sooner if clinical signs consistent with heart disease (continued episodes of potential syncope, exercise intolerance, elevated resting respiration rate, etc.), are noted.

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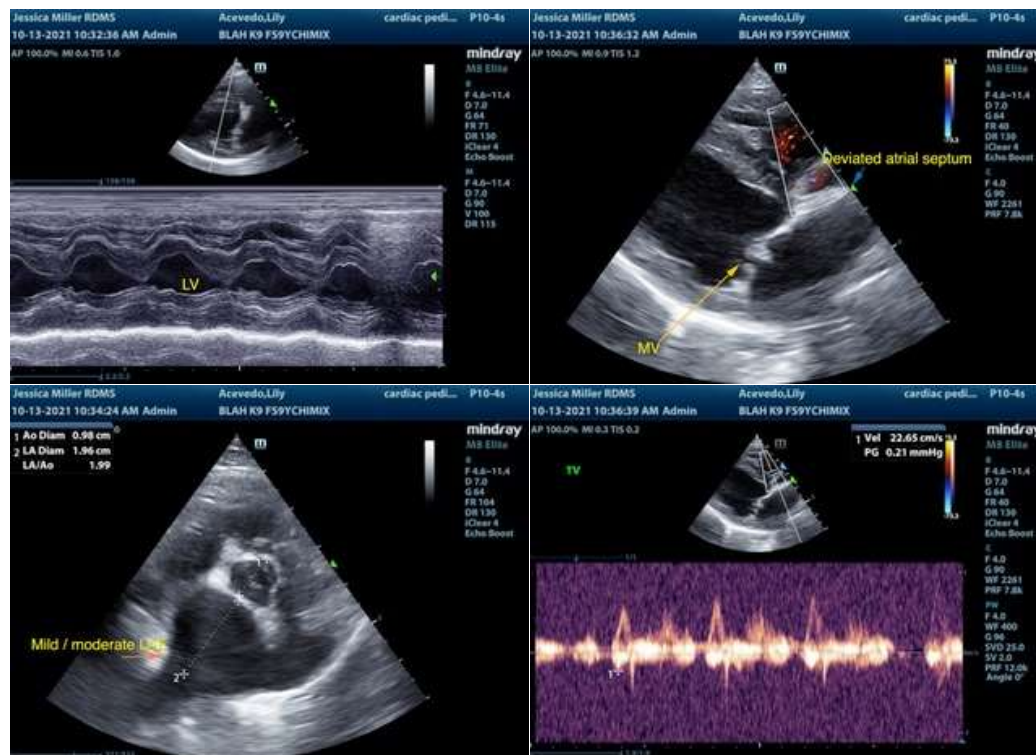
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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