



**PRESENTING CLINICAL SIGNS**

**DATE** History: Grade 4/6 murmur. Breathing issues. Receiving furosemide, pimobendan, and aminophylline.  
2/2/22

**ECHOCARDIOGRAPHIC FINDINGS**

**PERFORMED BY:** 2D, M-mode, and Doppler study.

Dr. Ferrer

**INTERPRETED BY**

Keith Blass, DVM,  
MS, DACVIM  
(Cardiology)

There is moderate left atrial dilation. The mitral valve leaflets are thickened and exhibit systolic prolapse. A moderate jet of eccentric mitral regurgitation present. There is mild left ventricular dilation. Left ventricular systolic function is hyperdynamic. The aorta and aortic valve are normal. Right atrial and right ventricular dimensions are normal. The tricuspid valve is normal. The pulmonary artery and pulmonic valve are normal. No shunting lesions are visualized. No pericardial effusion or cardiac masses are seen.

A tachycardia is present during this exam, however, it's unclear from the recorded ECG whether it is sinus or supraventricular in origin. Rare second-degree AV block is also present.

**PATIENT**

Lupe Patricia Carrillo  
Silva

LA - 36.3 mm  
LVIDd - 31.7 mm  
LVIDs - 15.3 mm  
FS - 51.7%  
RA - 21.5 mm  
LVOT - 1.25 m/s  
RVOT - 1.31 m/s  
TR - 2.97 m/s

**SPECIES**

Canine

**ASSESSMENT/RECOMMENDATIONS**

Degenerative mitral valve disease

**BREED**

Shih Tzu Mix

This examination demonstrates moderate regurgitation of blood across Lupe's mitral valve resulting from degenerative valve disease. Secondary to her regurgitation, Lupe has moderate dilation of her left atrium and mild dilation of her left ventricle, though her left ventricular systolic function is well-preserved. While I can't definitively say what the cause of Lupe's breathing issues is, I can say that her mitral valve disease is advanced enough to be able to result in left-sided congestive heart failure, therefore, this should be considered as a possible cause of her clinical signs.

**SEX**

FS

**AGE**

12 y

Lupe's ECG shows the presence of rare 2:1 second-degree AV block, as well as a tachycardia, though it's unclear whether the tachycardia is sinus or supraventricular in origin. Ideally, an ECG, preferably with multiple leads, would be recorded on ECG paper to further evaluate the tachycardia.

**WEIGHT**

25.2 lb

Lupe's current therapy with pimobendan is warranted based on this exam. Continued use of furosemide at the lowest effect dose would be warranted if the medication has improved Lupe's clinical signs. If furosemide is continued, I also recommend starting Lupe on enalapril (0.25-0.5 mg/kg BID).

**HOSPITAL NAME**

Paseos VC

A renal/electrolyte profile is recommended in 1-2 weeks if enalapril is started. A recheck echocardiogram is recommended in ~9 months. Thoracic radiographs are recommended if Lupe's respiratory clinical signs return.

**REFERRING VET**

Dr. Cruz



DATE

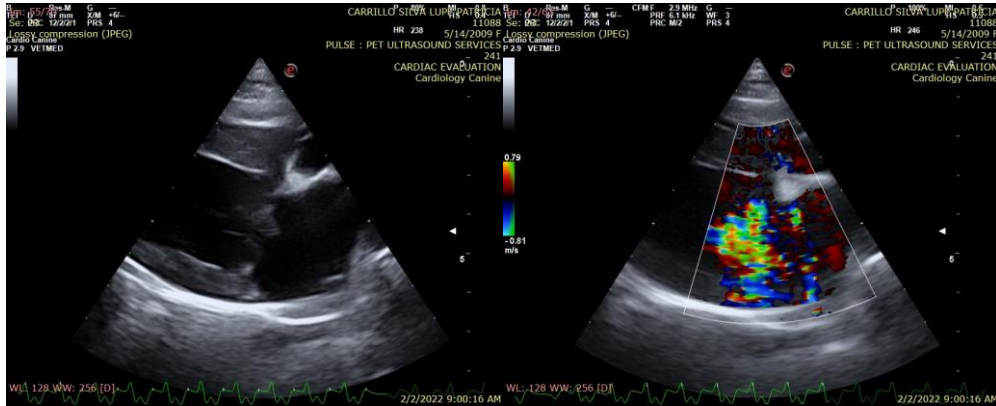
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

PATIENT

Lupe Patricia Carrillo  
Silva

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.

SPECIES

Canine

Keith Blass, DVM, MS, DACVIM (Cardiology)  
KeithBlass@gmail.com  
631-804-5754

BREED

Shih Tzu Mix

SEX

FS

AGE

12 y

WEIGHT

25.2 lb

HOSPITAL NAME

Paseos VC

REFERRING VET

Dr. Cruz