



PATIENT

Nuggie Smiley

SPECIES

Canine

BREED

Toy Schnauzer

SEX

Neutered Male

AGE

9 Years

WEIGHT

8.8 Pounds

INTERPRETED BY

Sara Brethel, DVM,
DACVIM (Cardiology)

IMAGING PERFORMED BY

Julia Bakker, DVM

HOSPITAL NAME

Orange Blossom VI

REFERRING VET

Steven Groves, DVM

INVOICE

37340

DATE

6/3/26

PRESENTING CLINICAL SIGNS

History: Grade 4 Las heart murmur, mitral insufficiency, myxomatous mitral valve degeneration.
Last echo attached.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-Mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	6.0	--	--	1.8	51.3	--	--
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LAD LA MAX 4 Chamber	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	2.08	1.08	4.0	2.7	2.3	1.12

Cardiac Presentation

The mitral valve leaflets are mildly thickened with mild mitral regurgitation posteriorly directed. There is no prolapse of the mitral valve leaflets. The left atrial size is moderately increased. Left ventricular internal dimensions during diastole are within normal limits and systolic function is preserved in the face of mitral regurgitation. There is normal right atrial size without tricuspid regurgitation. There is no prolapse of the tricuspid valve leaflets and no evidence of pulmonary hypertension based upon tricuspid regurgitant velocities. The right ventricle subjectively appears normal in structure and function. The aortic and pulmonic valves have normal morphology, and the corresponding outflow velocities are within normal limits. There is no evidence of pulmonic or aortic insufficiency. The aorta appears normal. The pulmonary artery and associated branches appear normal. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses.

ULTRASONOGRAPHIC FINDINGS

- Degenerative valve disease, ACVIM stage B2
- Moderate left atrial enlargement

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There has been progression since the previous echocardiogram performed and the left atrium is now



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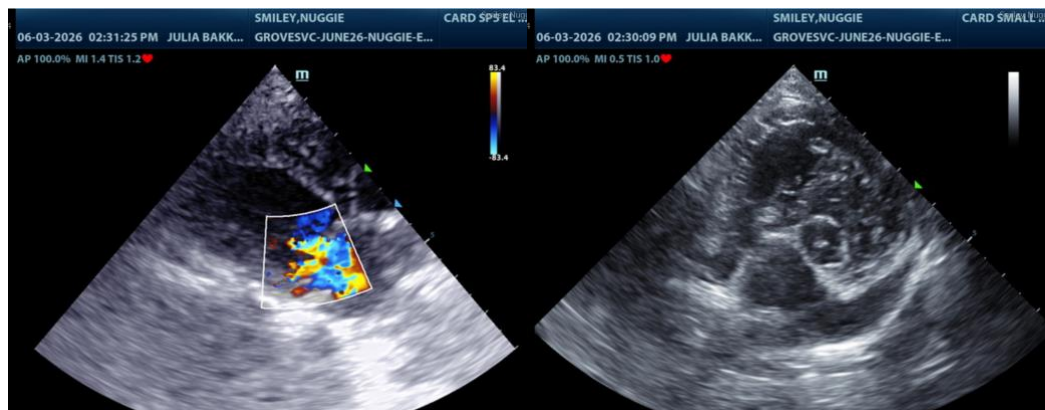
6/3/26

moderately enlarged. Therefore, cardiac therapies with pimobendan (Vetmedin) is recommended at a dose of 0.27 - 0.32 mg/kg twice daily. This will be a lifelong therapy. Recommend ensuring the patient is normotensive.

Recommend obtaining a blood pressure on the patient to ensure it is <160mmHg. If the blood pressure is elevated recommend following ACVIM guidelines for systemic hypertension and treating if indicated.

Recheck echo is recommended in 6 months, sooner if the patient is developing cardiovascular clinical signs or the murmurs worsening in intensity.

If anesthesia is needed, recommend the patient be on pimobendan for at least 1-3 weeks prior to elective anesthetic procedures. Judicious perioperative fluids are recommended due to the increased left atrial size. Medications like dexmedetomidine and other alpha 2 agonists are best avoided. Ketamine is also best avoided. If needed, anticholinergics can be used in the face of a clinically significant bradyarrhythmia (i.e., bradycardia with concurrent hypotension). If the patient is on an ACEi, recommend not giving this therapy the day of anesthesia.



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.

Sara Brethel DVM, DACVIM (Cardiology)

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