



PATIENT

Morkie Flores

SPECIES

Feline

BREED

Persian

SEX

Neutered Male

AGE

13 Years 2 Months

WEIGHT

9 Pounds

INTERPRETED BY

Sara Brethel DVM,
DACVIM (Cardiology)

IMAGING PERFORMED BY

Kathleen Byrnes

HOSPITAL NAME

Midway AC

REFERRING VET

Dr. Lakey

INVOICE

35967

DATE

2/24/26

PRESENTING CLINICAL SIGNS

History: P previously seen at ER for not eating several days, gallop rhythm heard. ProBNP 258, ER concerned for CHF, started on Furosemide.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT	4.09	--	0.66	1.59	0.67	40.88	--
FELINE CARDIAC PARAMETERS	LA/AO (M-mode)	LA/AO HEART BASE (Sisson)	LAD LA MAX 4 Chamber		LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)
NORMAL PARAMETER	<1.5	1.6	0.7-1.7		<1.6	<1.3	40-60
PATIENT	1.58	1.73	1.66		1.34	0.82	NM
Adapted from June Boon, Veterinary Echocardiography, 1998 Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

LVIDs: 0.94

ECG Interpretation

There is a significant arrhythmia. Clear definitive P waves are not identified. The rhythm is irregular. The QRS complexes appear wide and there are varying QRS morphologies present.

Cardiac Presentation

There is mild left atrial enlargement. The mitral valve leaflets are normal and there is no mitral regurgitation. There is no evidence of systolic anterior motion of the mitral valve and no evidence of a left ventricular outflow tract obstruction. There is concentric hypertrophy of the left ventricle. The right atrium is normal. The tricuspid valve is normal without evidence of tricuspid regurgitation. The right ventricle appears to have preserved systolic function subjectively. The aortic and pulmonic valves are normal without evidence of insufficiency. Aortic and pulmonic outflow velocities are within normal limits. The aorta and PA are normal along with the associated PA branches. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses.

ULTRASONOGRAPHIC FINDINGS

- Atrial fibrillation with ventricular premature complexes
- Left ventricular concentric hypertrophy
- Mild left atrial enlargement



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

It is unknown if the patient has been in active heart failure or not without reviewing the chest radiographs taken at the time. Respiratory signs such as coughing and sneezing are not often accompanied with cardiogenic pulmonary edema. Based upon the echocardiographic images there is no evidence of pleural effusion or pericardial effusion. Antiarrhythmic therapy is recommended.

I would start a low dose of atenolol starting at 0.25 mg/kg, once daily, for four days, and increasing to twice daily for four days, and then increasing to 0.5 mg/kg, twice daily, until directed otherwise, and then rechecking an electrocardiogram in another three to four weeks. Ideally, this patient would also have a Holter monitor performed to monitor the arrhythmia. If the patient has not had any respiratory signs, I do not recommend continuing the furosemide, but close monitoring of breathing rates is recommended.

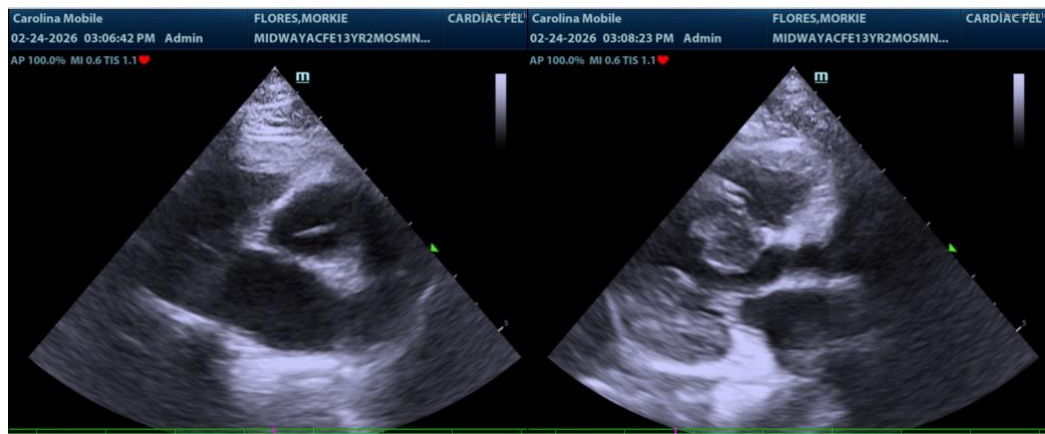
The client should start monitoring respiratory rate and effort at home if not already doing so. The resting respiratory rate should be < 35-40 breathes/minute when the patient is resting or sleeping. If the breathing rates are increasing, then chest radiographs are recommended.

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.

I also recommend ensuring the patient is euthyroid.

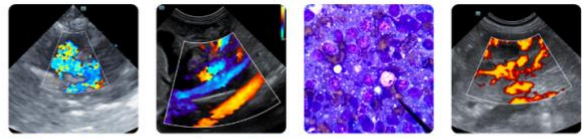
If doing well and pending repeat electrocardiogram assessments, recheck echo in 6 months.

Consider referral due to arrhythmia and long-term management. With the underlying rhythm, the patient is at risk for sudden cardiac death.



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



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can be of any further assistance please contact me.

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