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SUPPORTING INFORMATION

Echocardiographic characterization of a hypertrophic cardiomyopathy phenotype in an apparently healthy cat†

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S1 Echocardiography measurement and parameters with 2D-Motion mode

B-mode echocardiography confirmed a regular cardiac rhythm, endocardial thickening with increased echogenicity, and mild mitral leaflet thickening (Table S1). Preserved leaflet motion indicates structural modification without mobility impairment.

Table S1. Two-dimensional brightness-mode (B-mode) echocardiographic findings in a male domestic shorthair cat with a suspected hypertrophic cardiomyopathy (HCM) phenotype.

Parameter	Findings
Cardiac rhythm	Appeared regular
Endocardial lining	**Apparent thickening with increased echogenicity**
Valvular morphology	**Mild mitral leaflet thickening**
Valvular motion	Preserved leaflet motion

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S2 M-mode echocardiographic measurements

M-mode measurements confirmed left ventricular wall thickening, with end-diastolic septal and posterior wall thicknesses of 6.0 and 8.7 mm, respectively (Table S2). High device-reported ejection fraction and fractional shortening demonstrate hyperdynamic ventricular emptying and do not indicate normal diastolic function.

Table S2. M-mode echocardiographic measurements and derived indices in a male domestic shorthair cat with a suspected HCM phenotype. Comparator values represent the mean ± standard deviation for nine anesthetized male Indonesian domestic cats reported by Noviana and Kurniawan (2013), rather than population reference intervals.

Parameter	Abbreviation	Measured value	Comparator value	Unit
Heart rate	HR	**214**	153 ± 19	BPM
Inter-ventricular septa-diastole	IVSTd	**6**	3,0 ± 0,5	mm
Left ventricle internal dimension-diastole	LVIDd	12.7	14,8 ± 1,2	mm
Left ventricular posterior wall-diastole	LVPWd	**8.7**	3,5 ± 0,6	mm
Inter-ventricular septa -systole	IVSTs	9.5	5,6 ± 0,3	mm
Left ventricular internal dimension -systole	LVIDs	5.1	7,8 ± 1,1	mm
Left ventricular posterior wall-systole	LVPWs	10.0	5,7 ± 0,3	mm
Ejection time	ET	0.12	—	Second
End diastolic volume	EDV	2.03	5,96 ± 1,17	ml
End systolic volume	ESV	0.13	1,08 ± 0,42	ml
Stroke volume	SV	1.89	4,88 ± 0,87	ml
Cardiac output	CO	0.41	0,865 ± 0,179	L/min
Ejection fraction	EF	**93.00**	82,28 ± 4,64	%
Fractional shortening	FS	**59.00**	47,81 ± 4,90	%
Left Atrial Appendage-systole†	LAAs	10.2	—	mm
Aortic diameter-diastole	AoDd	8.4	6,7 ± 0,7	mm
Left Atrial Appendage-systole-to-Aortic diameter-diastole ratio†	LAAs: AoDd	1.2 : 1	—	

Note: Abbreviations: d, diastole; s, systole; LA, left atrium; Ao, aorta; —, no comparable value available. EDV, ESV, SV, CO, EF, and FS were generated automatically by the ultrasonography system. Recalculation using the displayed measurements did not reproduce all device-generated values exactly; the calculation algorithm and unrounded source data were unavailable to resolve these discrepancies. The comparator study used the Teichholz method to estimate ventricular volumes; equivalence with the algorithm used in this case could not be established. Left atrial and aortic dimensions were measured on a static image with the aortic valve closed. Differences in measurement methods and the use of anesthesia in the comparator study limit direct comparisons.

†The designation “LAAs” is retained from the original record. The anatomical structure measured—left atrium or left atrial appendage—and the precise cardiac-cycle landmark require verification before this ratio can be interpreted as a standardized LA:Ao measurement.

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S3 Qualitative color Doppler findings

Color Doppler examination confirmed the absence of regurgitant flow across the atrioventricular and semilunar valves (Table 3). Accordingly, the mild mitral leaflet thickening identified on B-mode imaging was not accompanied by valvular regurgitation.

Table S3. Qualitative color Doppler findings at the time of examination.

Parameter	Findings
Atrioventricular valves	No regurgitation detected
Semilunar valves	No regurgitation detected