



PATIENT

Gladys Murray

SPECIES

Canine

BREED

Persian Cat

SEX

FS

AGE

13 Years

WEIGHT

6.5 lbs

PRESENTING CLINICAL SIGNS

No murmur detected but has hypertension. Decreased appetite with breathing issues. Small amount of pleural effusion seen on radiographs. Not enough to tap. Been on amlodipine and doing better. This is an anesthesia heart check.

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		212	0.61	1.35	0.57	57.8	92.2
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Sisson)	LA 2D 4-chamber long axis AS to FW (Sisson) (cm)		LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7		<1.6	<1.3	40-60
PATIENT		1.6	1.4		2.0	0.95	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							

INTERPRETED BY

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

IMAGING PERFORMED BY

Kim Liedberg

HOSPITAL NAME

SVS Imaging

REFERRING VET

Dr Swanson,
Waukegan Pet Clinic

INVOICE

47418

DATE

9-17-21

Cardiac Presentation

The echocardiogram in this patient demonstrated a mildly enlarged **left atrial** size and structure with no evidence of “smoke” or thrombi. The cranial and caudal **mitral** valve leaflets appeared mildly thickened with some insufficiency noted on Doppler. The **left ventricle** presented borderline hypertrophic septal and free wall changes with evidence of myocardial remodeling. The overall **myocardium** exhibited essentially normal echogenicity without immediate signs of fibrotic or ischemic disease. Mild papillary muscle hypertrophy within the left ventricle lumen was present. **Contractility** of the ventricular walls was considered excessive for this patient evidenced by the elevated fractional shortening measurement. The **left ventricular outflow** tract demonstrated turbulent laminar flow. Subjective assessment of the **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated linear morphology. Minor tricuspid valve insufficiency was present on Doppler assessment. The **right ventricle** was of normal size with normal chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter. No visible **pericardial** or free pleura fluid was noted. No echographically detectable evidence of infiltrative disease was visible. The **mediastinum** was free of masses in the visible window.



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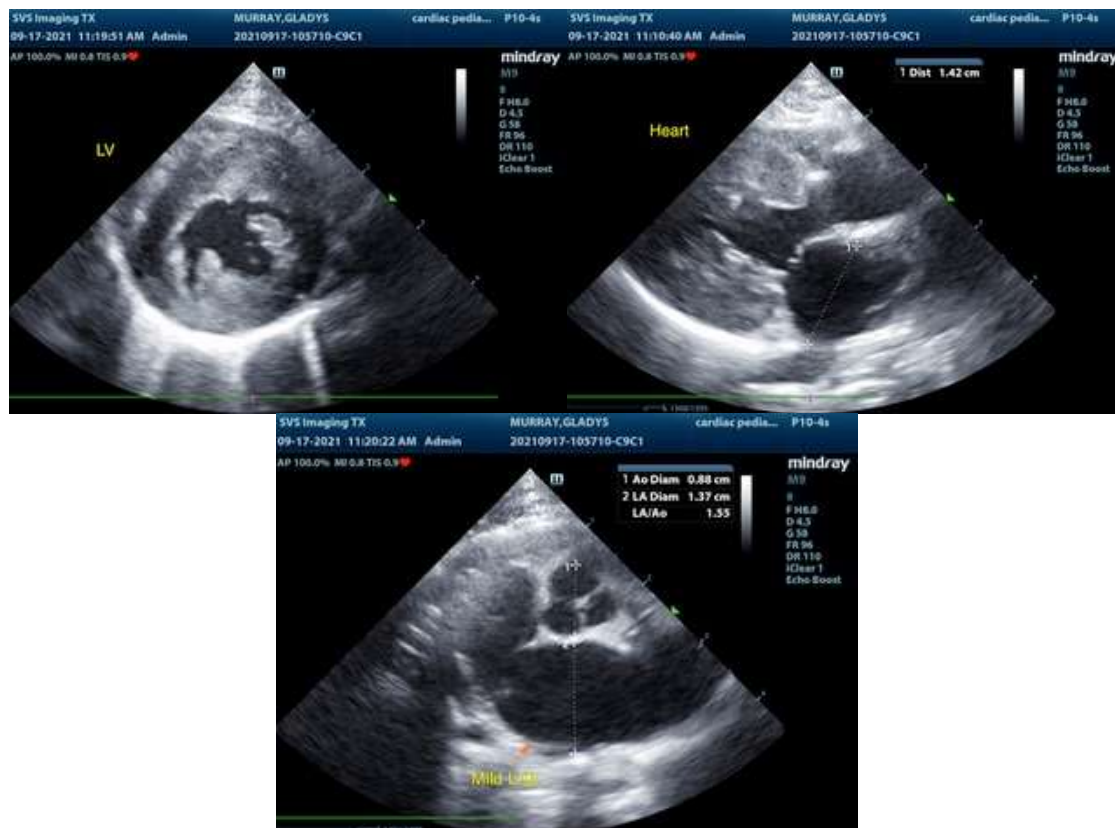
9-17-21

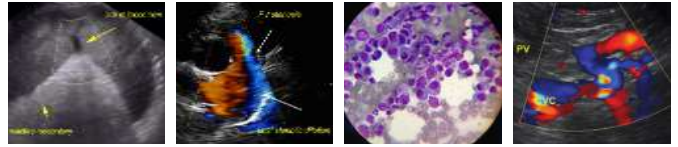
ULTRASONOGRAPHIC FINDINGS

- Borderline hypertrophic IVS LV free wall changes with myocardial remodeling.
- Mild left atrium enlargement.
- Mild mitral and tricuspid valve insufficiency.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Emerging primary HCM is a rule out diagnosis assuming normal blood pressure yet in this patient the borderline hypertrophic septal and free wall changes may be owing to hypertension given the patient's history. Emerging unclassified cardiomyopathy may also apply in this case. Regardless of classification, the lack of significant left atrium enlargement indicates that the risk of future complication is relatively low. Clinical signs or congestion owing to heart disease is not anticipated. No overt indication for cardiac medications. Given the overall appearance of the heart as well as history of hypertension, anesthetic risk is elevated in this patient and elected anesthesia is note recommended unless absolutely necessary. If anesthesia is needed opioid benzodiazepine premed propofol or alfaxalone induction and as low as possible inhalant is recommended with avoidance of acepromazine, telazol, ketamine, or similar medications. Recheck echocardiogram suggested in 6 months or sooner if clinical signs consistent with heart disease develop.





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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.

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Canine

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.

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info@SonoPath.com

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