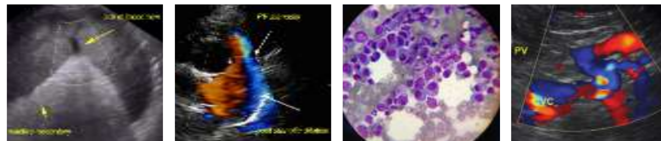
SonoPath

Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com™
1-800-838-4268 info@sonopath.com

PATIENT

Wolf Glasser

SPECIES

Feline

BREED

DSH

SEX

MN

AGE

17 years

WEIGHT

13 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Gromalak

HOSPITAL NAME

SVS Imaging

REFERRING VET

Dr. Gensler

INVOICE

12804

DATE

12/14/21

PRESENTING CLINICAL SIGNS

Enlarged heart on X-ray, hyperthyroid, heart murmur. currently on amlodipine.

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		203	0.68	1.43	0.62	56.6	89.6

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	2.6	2.6	2.5	1.0	0.8	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

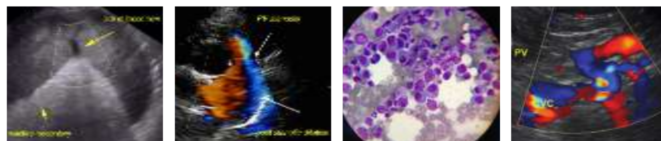
Cardiac Presentation

The echocardiogram in this patient demonstrated severe increased **left atrial** size without overt 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 excessive free wall and septal thicknesses with hypertrophic thicknesses compared to normal for this species. Concurrent papillary muscle hypertrophy was present. The **myocardium** presented essentially normal echogenicity without immediate signs of fibrotic or ischemic disease. **Contractility** of the ventricular walls was considered within normal limits and adequate as evidenced by the fractional shortening measurement. The **left ventricular outflow** tract demonstrated turbulent laminar flow. Subjective assessment of the **right atrium** and auricle revealed increased size with anechoic content and without overt evidence of "smoke" or masses. **Tricuspid** valvular assessment demonstrated linear morphology. 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. Mild **pericardial** free fluid was noted without overt evidence of concurrent free pleural fluid. The pericardial regional and **mediastinum** were free of masses in the visible window. Intermittent tachyarrhythmia was present.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- IVS and LV free wall hypertrophy



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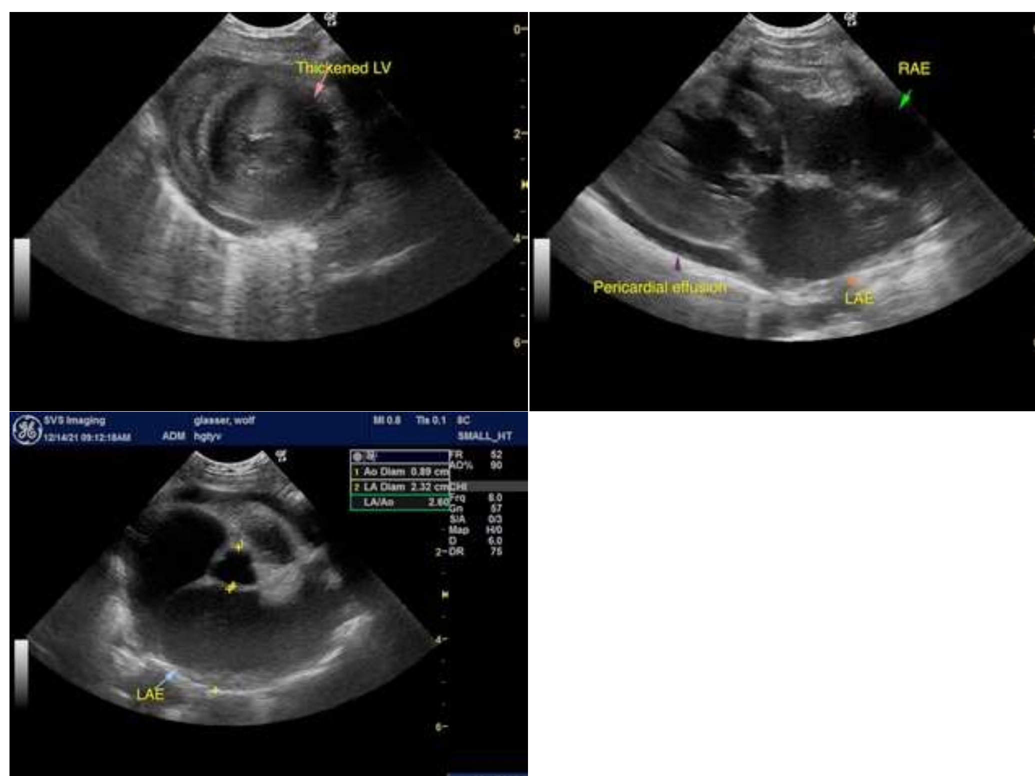
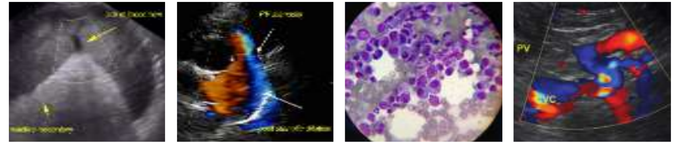
- Biatrial enlargement
- Intermittent tachyarrhythmia
- Mild pericardial effusion

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The echocardiogram in this patient revealed significant cardiomyopathy. End-stage hypertrophic cardiomyopathy, given the patient's history of hyperthyroidism, or if currently elevated T4 levels may be considered the primary differential diagnosis potential. Potential for unclassified or restrictive cardiomyopathy in the face of biatrial enlargement, which may present as sonographically similar, Is also possible. Regardless of classification, the severely enlarged left atrium indicates that the current and future risk going forward for congestive heart failure, thrombus formation, and sudden death is elevated.

Consider hospitalization with stabilization if current respiratory signs are noted. Diuretic 1.0-2.0 mg/kg PO BID, Pimobendan 1.25 mg PO BID and Clopidogrel 75 mg tab (1/4 tab) PO SID is recommended. Baseline ECG and blood pressure is strongly suggested. Monitoring of renal values initially in 1-2 weeks then every 3-4 months Is recommended. Recheck echocardiogram Is suggested as-needed, especially if recurring evidence of congestive heart failure. A very guarded to unfavorable long-term prognosis is indicated pending clinical response to therapy.





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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.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com