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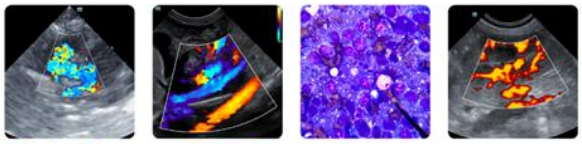
FOSTERING THE ART OF VETERINARY MEDICINE™



Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath.com info@sonopath.com 1.800.838.4268

PATIENT
Nancy Williams

SPECIES
Canine

BREED
Mini Schnauzer

SEX
F

AGE
12

WEIGHT
19.4

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

IMAGING PERFORMED BY
Dr Sharkawy

HOSPITAL NAME
Kew Gardens Animal Hospital

REFERRING VET
Dr Ray

INVOICE
24305

DATE
03/25/2026

PRESENTING CLINICAL SIGNS

- Collapsed
- Abnormal PE/Chem/CBC/UA Results: Heart murmur grade 4/6

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	--	--	--	2.5	45	78	0.5
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT**	**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	--	0.8	19.4	5.0	3.7	--

Cardiac Presentation

The echocardiogram in this patient demonstrated severe increased left atrial size based on 2 different LA measurement methods with associated interatrial subtle deviation. The cranial and caudal mitral valve leaflets presented thickening consistent with endocardiosis. Doppler indicated severe eccentric insufficiency. The left ventricle presented thicknesses with linear contour and significant increased LV dimension. The myocardium presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. Contractility of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions of the myocardium. The left ventricular outflow tract demonstrated normal laminar flow and subjective structural integrity. The right atrium and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. Tricuspid valvular assessment demonstrated adequate linear morphology. The right ventricle was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. Pulmonic tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No visible pericardial or free pleura fluid was noted. No echographically detectable evidence of cardiac / pericardial tumors was visible. No overt arrhythmia or evidence of hepatic congestion.

ULTRASONOGRAPHIC FINDINGS

Primary

- Chronic mitral valve disease with left heart volume overload (ACVIM stage C)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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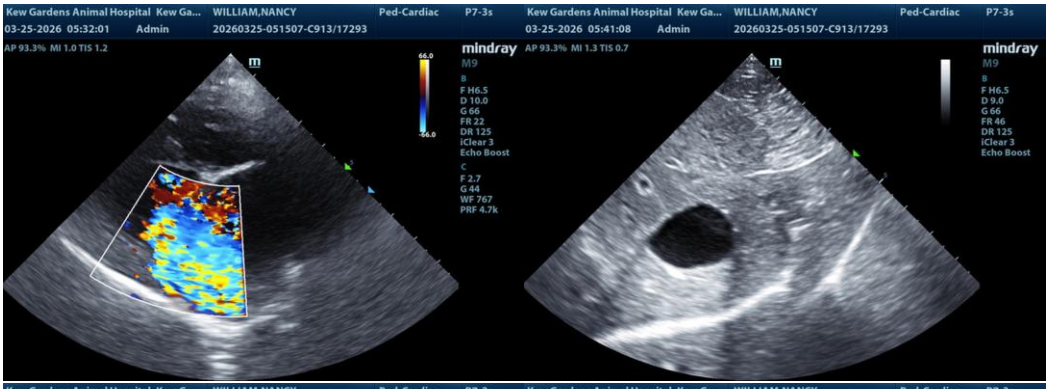
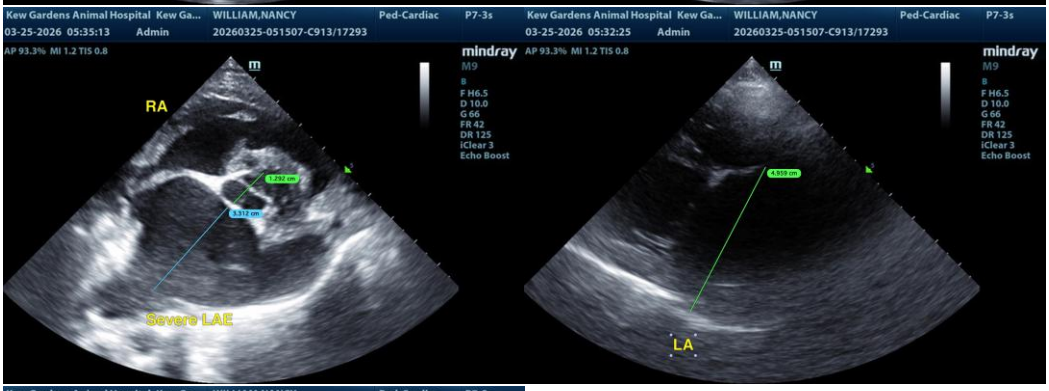
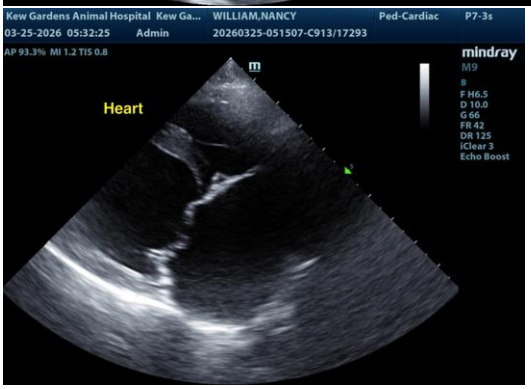
The cause of the murmur is chronic degenerative valvular changes with secondary eccentric mitral valve insufficiency. The left atrial enlargement implies that the risk of complication secondary to mitral valve insufficiency is significantly elevated with possible clinical signs secondary to volume overload. Initiate Furosemide / Spironolactone 1-2 mg/kg BID, Pimobendan 0.3 mg/kg BID. ACEI is suggested if systemic BP >130 (not overtly beneficial if <130). No overt clinical pulmonary hypertension.

Antitussive medication if coughing is suggested. Omega 3 fatty acids and mild salt restriction may prove beneficial. Monitoring of ECG for evidence of atrial fibrillation is recommended. Serial monitoring of resting RR going forward is advised.

Prognosis is considered variable and sonographic monitoring is recommended. Recheck echo cardiogram is suggested in 4-6 months, sooner if progressive clinical signs.







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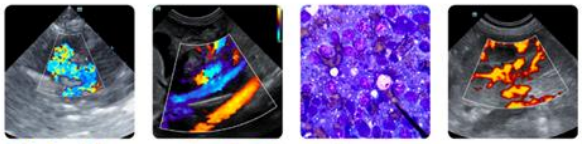

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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