



PATIENT

Mordecai Daiuto

PRESENTING CLINICAL SIGNS

Tachypenic, cardiomegaly, aerophagic Current meds: furosemide 2mg/kg
Abnormal PE/Chem/CBC/UA Results: Abnormal BNP, glu 187, crea 2, mono 0.05

SPECIES

Feline

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

BREED

Maine Coon

SEX

Neutered Male

AGE

5 Years

WEIGHT

14.12 Pounds

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		206	0.57	1.65	0.60	45.5	80.2
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		1.5	1.65	1.0	0.9	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 normal **left atrial** size based on 3 separate LA measurements. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. No overt evidence of SAM noted. The **left ventricle** presented normal thicknesses for breed with subtle asymmetrical IVS and LV free wall contour without evidence of LV dilation or restriction. Mild papillary muscle hypertrophy noted within the left ventricular lumen. The **myocardium** presented overall normal echogenicity without 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 and angles of the myocardium. The **left ventricular outflow** tract demonstrated subjective normal laminar flow and 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 and kinetics. 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 or extra cardiac pathology in the visible planes. The cranial **mediastinum** and **pericardial regions** were free of masses in the visible window.

ULTRASONOGRAPHIC FINDINGS

- Normal left atrium
- Subjective minor IVS remodeling
- Mild papillary muscle hypertrophy

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Newton Vet Hospital

REFERRING VET

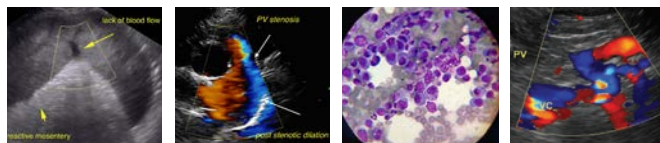
Dr. Chun

INVOICE

25934

DATE

9/29/21



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The normal left atrial size in this patient is not overtly consistent with left atrial size typically associated with increased left atrial pressure and congestion. Potential exceptions to this rule may include iatrogenic or stress induced event, which may lead to spontaneous decompensation even with normal left atrial dimensions. No other clinical issues such as overt pulmonary hypertension or systolic dysfunction were noted. Potentially, the subjective mild myocardial remodeling associated with the IVS as well as papillary muscle hypertrophy may suggest emerging hypertrophic changes in this patient. However, these changes are subtle and not definitive. Regardless, the lack of left atrial enlargement was not overtly consistent with cardiogenic respiratory abnormalities or pulmonary edema. The tachypnea and respiratory abnormalities in this patient may be multifactorial in origin.

3-view chest radiographs (if not done) are recommended to assess pulmonary parenchyma. Although the overall presentation of the heart was not overtly consistent with a cardiogenic cause of the respiratory abnormalities, Furosemide trial with assessment of clinical response would be reasonable. No overt indication for additional cardiac medication. Pending assessment of clinical response, recheck echocardiogram is suggested in 6 months, sooner if clinical signs suggestive of cardiac disease are noted.



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)
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