



PATIENT

Macho Alemania

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

3 Years

WEIGHT

4.3 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Callihan/AEC

HOSPITAL NAME

Animal Emergency
Care

REFERRING VET

Dr. Bailey/AEC

INVOICE

37842

DATE

5/22/22

PRESENTING CLINICAL SIGNS

Presented on ER this morning for complaint of difficulty breathing since yesterday, inappetent. History of being treated for pneumonia last year, responded well, occasionally has episodes of difficulty breathing per owner.

Abnormal PE/Chem/CBC/UA Results: QAR on presentation, tachypneic with mildly increased effort Temp 99.8. CBC is normal. Chemistries were not performed. No obvious crackles and no murmur. There are B-lines bilaterally, not white-out but almost, worse on left. There is an unstructured bronchointerstitial pattern on thoracic radiographs with equivocal heart size. No obvious venous distension.

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		167	0.49	1.0	0.48	54.5	89
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	1.1	1.2	1.1		<2.0	<2.0	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. The **left ventricle** presented normal thicknesses with linear contour and was not dilated nor restricted. 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 and angles 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 and kinetics. Mild TR present on doppler. 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

- Overtly normal cardiac structure and function
- Mild TR



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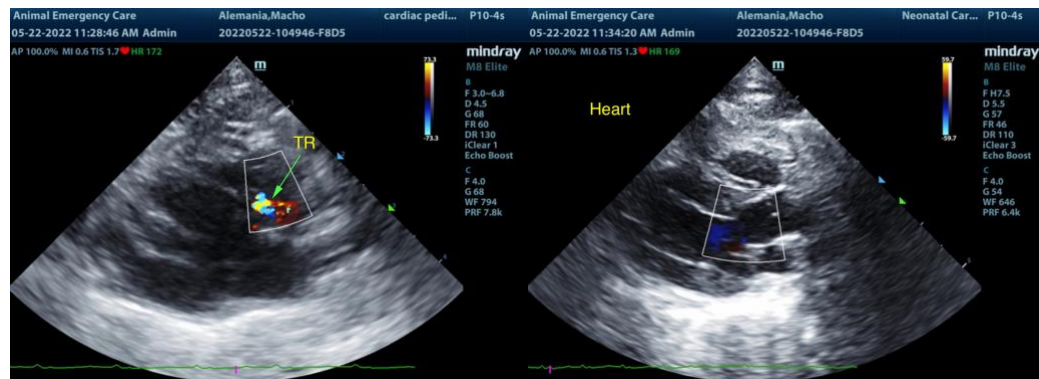
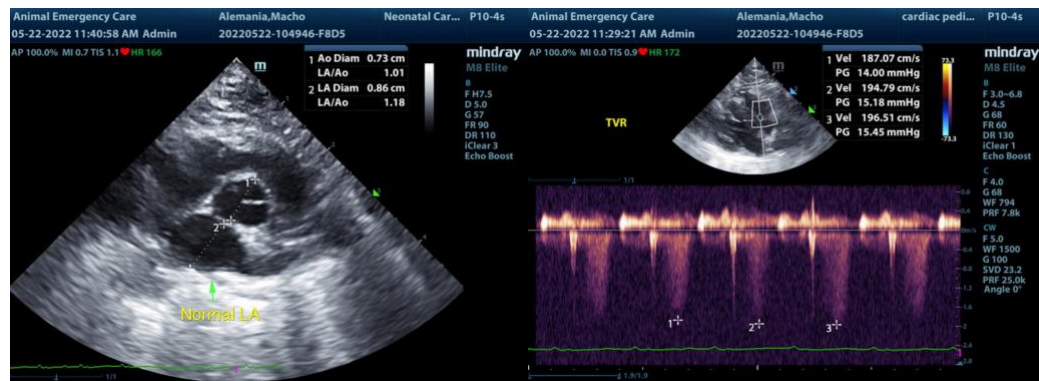
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of significant structural or functional cardiomyopathy, including no evidence of clinical issues such as left or right heart chamber enlargement, or LV systolic dysfunction as a contributing factor or primary cause of the patient's breathing abnormalities. Mild TR was present, yet not overtly consistent with clinical pulmonary hypertension. Given this presentation, consideration for non-cardiogenic causes for breathing issues (i.e., primary lower airway disease, non-cardiogenic edema, etc.) indicated. No indication for cardiac medications.



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

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