



PATIENT PRESENTING CLINICAL SIGNS

Rudy Koo CHF. Chest x-ray – Mild left atrial enlargement and right-sided enlargement, chronic bronchial changes.

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART

Canine

BREED

Maltese

SEX

Neutered Male

AGE

2008

WEIGHT

7.8 Pounds

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	5.1		1.3	1.7	41	75	NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis Base view (cm)	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	132	1.3	0.4		2.7	2.43	

Cardiac Presentation

The echocardiogram presented a prominent **right heart** with mild **right ventricular** hypertrophy and normal **right atrial** size. No evidence of neoplasia was noted in the right auricle, or elsewhere in the heart. Trivial **tricuspid** insufficiency noted. The **pulmonary artery** was uniformly prominent with mildly depressed pulmonic velocity measured on PW Doppler. No overt heartworms were noted in the main or visible deep pulmonary arteries. Yet, theoretically heartworms could be present in the deep pulmonary vasculature out of visible sonographic range. More likely, however, this prominent right heart is due to excessive intra-thoracic pressures caused by chronic respiratory disease or potentially excessive intra-thoracic fat (Pickiwickian syndrome). The **left heart** demonstrated a linear **ventricular septum**. Contractility was functionally adequate demonstrated by the FS% measurement. Excessive **left atrial size** expressed both in the LA/AO and LA max measurements. The cranial and caudal **mitral valve** leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. The **left ventricular outflow** demonstrated normal flow patterns and velocities through the aortic valve. No evidence of tumor, pericardial or pleural effusion was noted. The visible **extra-cardiac** tissues were uniformly linear without evidence of masses, infiltrative or inflammatory mediastinal tissue. No evident arrhythmic activity was noted during the exam.

ULTRASONOGRAPHIC FINDINGS

- B2 valvular disease

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Recommend inspiratory/expiratory radiographs of the trachea to assess for tracheal collapse. It is likely that both bronchial/tracheal disease as well as left atrial impingement upon the mainstem bronchus are causing the clinical signs in this patient. Recommend bronchodilator, hydrocodone, and Pimobendan at 0.3 mg/kg BID, as this is stage B2 valvular disease. Low-dose Lasix can be considered as well, which will serve both as a respiratory and cardiac treatment.

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

HOSPITAL NAME

Franklin Lakes AH

REFERRING VET

Dr. Ward

INVOICE

34991

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1/21/22



PATIENT

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B2: The heart is in a somewhat precarious state with volume overload and a heart that is working to compensate for the valvular insufficiency. Target respiratory rate is < 20 resp/minute after therapy. After initiating therapy, I recommend recheck on the clinical exam, BUN, Creatinine, USG, Chest radiographs & Blood pressure in 5-7 days. Recheck echo in 1 month. Earlier if clinical decompensation is occurring. I do not recommend anesthesia at this time until stabilization has occurred on the recommended medications. Repeat preanesthetic echo is ideal if anesthesia is eventually necessary.

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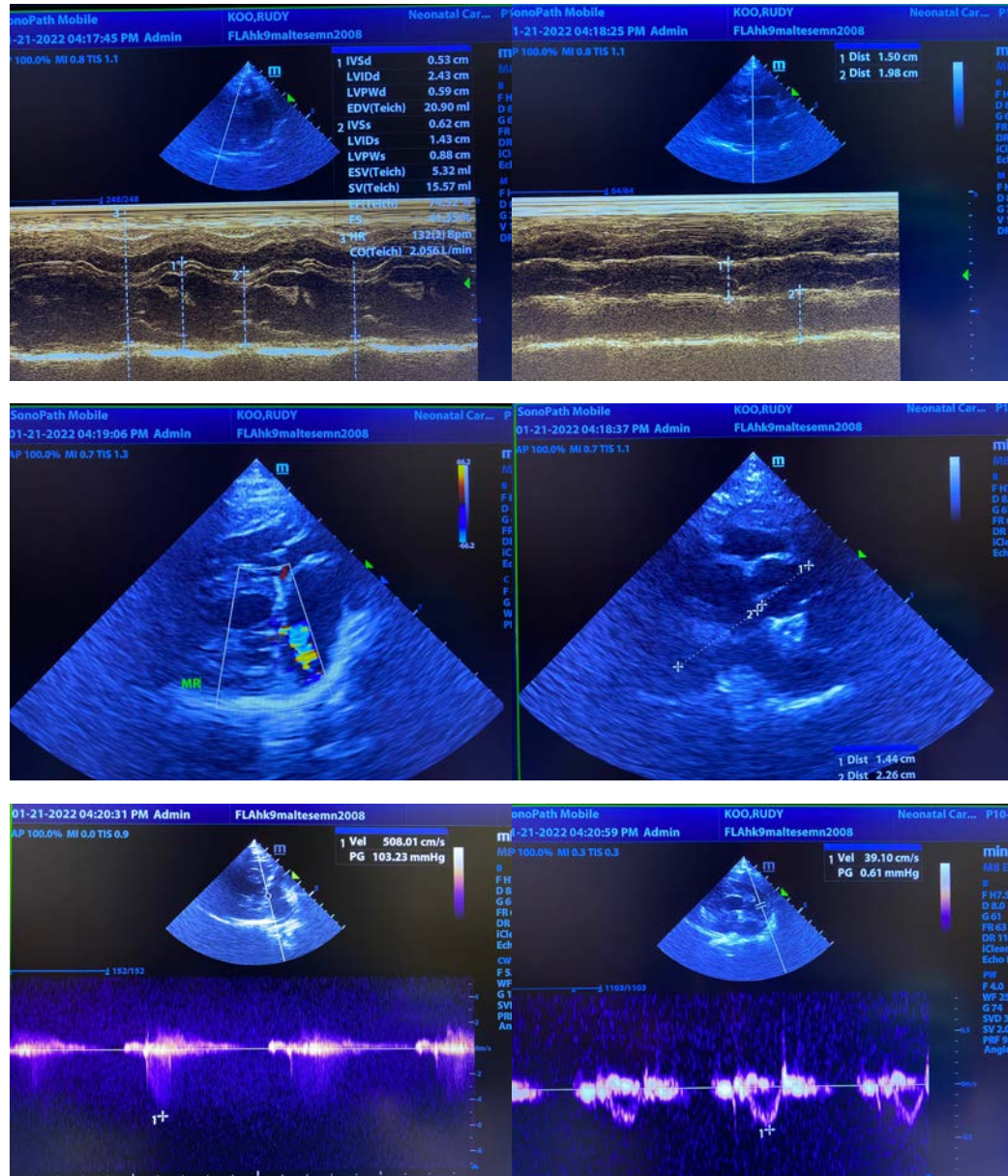
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PATIENT

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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.

SPECIES

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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Maltese

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