



**PATIENT PRESENTING CLINICAL SIGNS**

**Luigi Vadelden** History: Potential CHF, cardiomegaly, dry, hacking cough. Previous echo , grade 4/6 heart murmur 5/3/2022. Current meds: Pimobendan and Furosemide.

**SPECIES** Abnormal PE/Chem/CBC/UA Results: Renal values WNL as of 11/18/22. Full bloods WNL as of 6/2/22.  
**Canine** U/A: 1+ blood, 1+ protein, USG 1.039.

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

**BREED**

Havanese

**SEX**

Neutered Male

**AGE**

13 Years

**WEIGHT**

26.2 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)
<b>NORMAL PARAMETER</b>	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
<b>PATIENT</b>	5.5	3.0	2.2	2.8	42	73	0.1
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)
<b>NORMAL PARAMETER</b>	50-100	0.7-1.7	0.7-1.6				
<b>PATIENT</b>	108	1.14	.57	--	4.84	4.35	--

**INTERPRETED BY**

Eric Lindquist, DMV  
 DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Kelly Vazquez

**HOSPITAL NAME**

Ramapo Valley AH

**REFERRING VET**

Dr. Katara

**INVOICE**

18162

**DATE**

11/21/22

**Cardiac Presentation**

The cardiac presentation in this patient presented severe volume overload of the left atrium and left ventricle. Mitral and tricuspid insufficiency noted with prolapse of the anterior mitral valve leaflet. The patient is tachycardic. Pulmonary edema lines were noted. This change is consistent with stage C-1 valvular disease. No pericardial or pleural effusion was noted. Hepatic veins were not dilated. A comet tail lung pattern was noted through the lung fields.

**ULTRASONOGRAPHIC FINDINGS**

- Decompensating valvular disease, Stage C-1
- Comet tail lung pattern in the lung fields

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

I recommend quadra therapy in this patient. In addition to the current Pimobendan and furosemide, I recommend increasing furosemide to 2-4 mg/kg BID, ace-inhibitor at 0.5 mg/kg SID progressing to Bid and Spironolactone at 1-2 mg/kg BID. Target resting respiratory rate <25 p/m. Prognosis is guarded. Hycodan or similar cough suppressant could be utilized as well.

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



**PATIENT**

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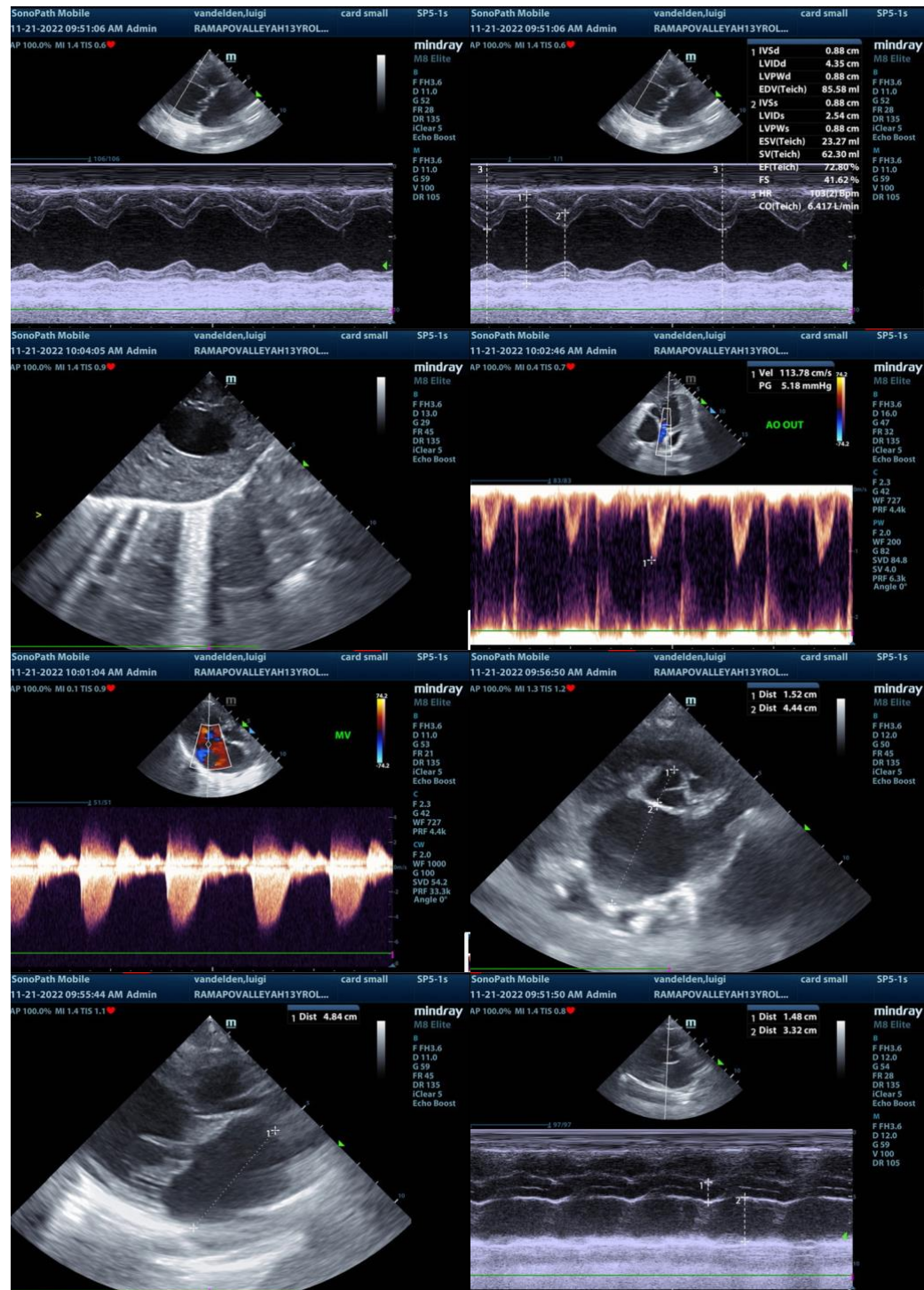
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**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.

**BREED**

Havanese

**Eric Lindquist**, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com  
info@SonoPath.com

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