



**PATIENT**

Leo Veliz

**PRESENTING CLINICAL SIGNS**

History: Rechecking heart condition - last echo done 12/30/22. History of tracheal collapse.

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

The echocardiogram in this patient presented mild to moderate volume overload of the **left and right atria** and **left ventricle**. Prolapse of the **mitral** and **tricuspid** valves were noted. Significant tricuspid insufficiency is consistent with pulmonary hypertension secondary to left-sided volume overload. The vena cava was dilated at 1.4 cm. Dilated hepatic veins were noted. Some lung rockets/B lines were noted in the pulmonary fields. Concurrent respiratory disease may be complicating the pulmonary hypertension. Contractility appeared adequate. No pericardial or pleural effusion.

**BREED**

Shih Tzu Spitz Mix

**SEX**

Neutered male

**AGE**

14 years

**WEIGHT**

22 lbs

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Kelly Vazquez, CVT

**HOSPITAL NAME**

North Haledon VC

**REFERRING VET**

Dr. Mansfield

**INVOICE**

76079

**DATE**

7/11/23

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base;)	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	5.9	3.5	NM	2.0	41	73	NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	LA (cm)	LVIDd (cm)	LVIDs (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
PATIENT	112	1.36	1.4	22 lbs	4.44 max	3.85	

**ULTRASONOGRAPHIC FINDINGS**

Mitral and tricuspid insufficiency with volume overload and progressive pulmonary hypertension.

Collapsing trachea and respiratory disease is likely complicating the pulmonary hypertension in this patient.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Assuming that the patient is currently on quadrotherapy with Pimobendan, Furosemide, Spironolactone and Enalapril I recommend adding Sildenafil at 1 mg/kg b.i.d. and increase it to 1.5 mg/kg b.i.d. Bronchodilators such as Albuterol and cough suppressant such as Hycodan would be appropriate as well to treat the primary disease. If cortisones are utilized should be from an aerosol delivery standpoint. However, low-dose cortisone may be necessary to control the tracheal collapse. This is a multi-factorial presentation. Recheck echocardiogram is recommended in 3 months or earlier if clinical signs merit an early recheck.



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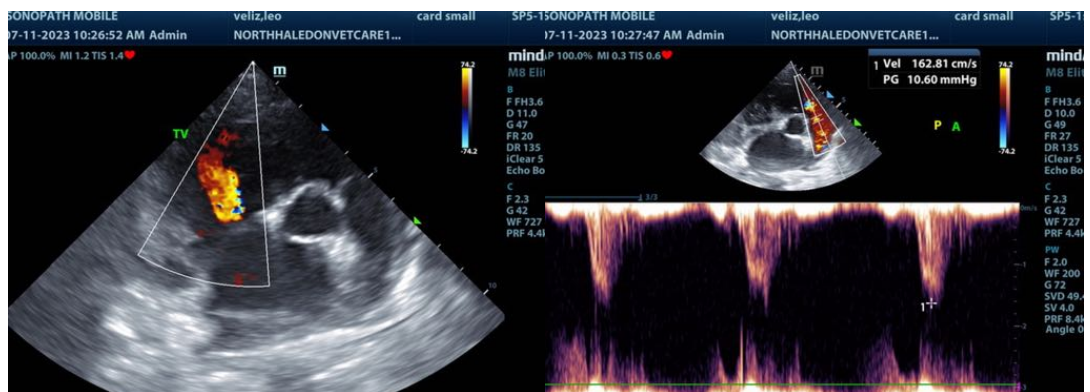
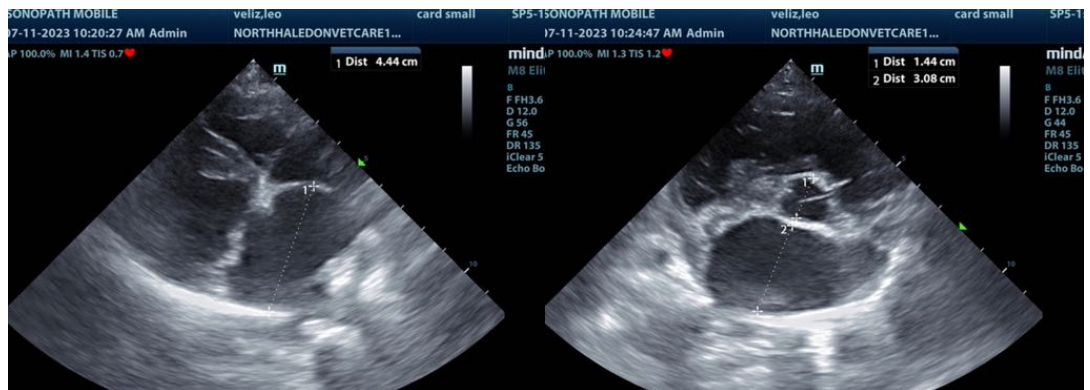
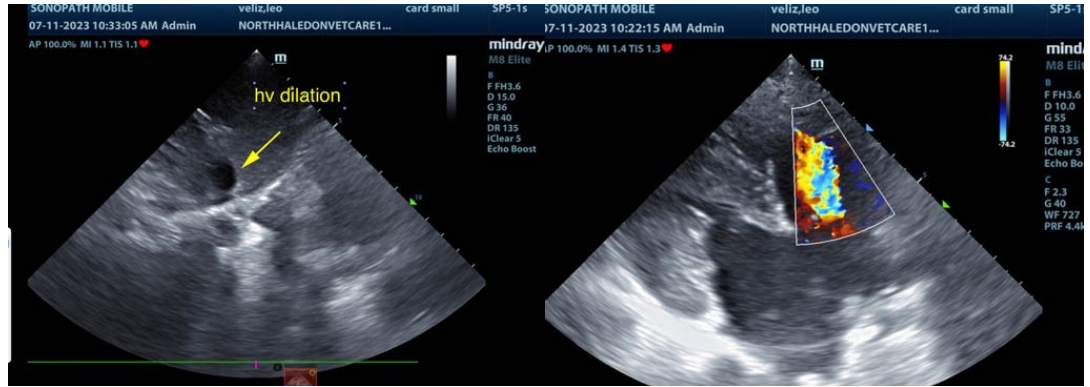
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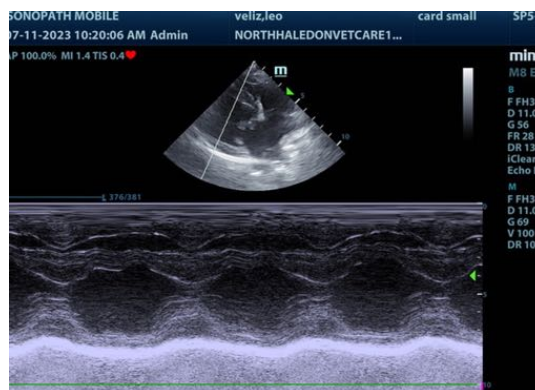
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

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