



## PATIENT

Luna Connolly

## SPECIES

Canine

## BREED

Miniature Bernedoodle

## SEX

Intact male

## AGE

13 weeks

## WEIGHT

15 lbs

## INTERPRETED BY

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

## IMAGING PERFORMED BY

Dr. Christensen

## HOSPITAL NAME

Tranquility VC

## REFERRING VET

Dr. Chirstensen

## INVOICE

46591

## DATE

8/14/23

## PRESENTING CLINICAL SIGNS

History: Owner just got from breeder. 4/6 systolic murmur. Referred for scan. Sedated with gaba/traz oral and IV butorphanol.

Abnormal PE/Chem/CBC/UA Results: PE= WNL. Normotensive.

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. The **left ventricle** presented 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 of the myocardium. Minor aortic insufficiency was noted in this patient. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. Abnormal high velocity turbulence was noted at the **right ventricular outflow tract** in the pulmonic valve region. No visible **pericardial** or free pleura fluid was noted. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window.

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			1.1	1.0	35		0.1
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	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	BELOW	BELOW	BELOW	BELOW
PATIENT				15 lbs	2.13 max	2.4	

## ULTRASONOGRAPHIC FINDINGS

High velocity turbulence RVOT in the pulmonic valve region. Could not differentiate pulmonic stenosis from PDA in this patient. Further imaging is necessary. Pulmonic insufficiency was present.

Minor aortic insufficiency.



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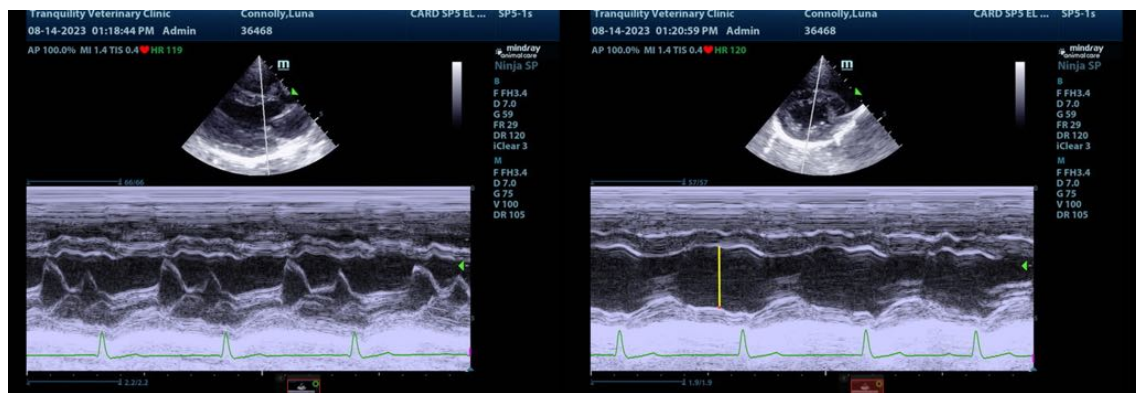
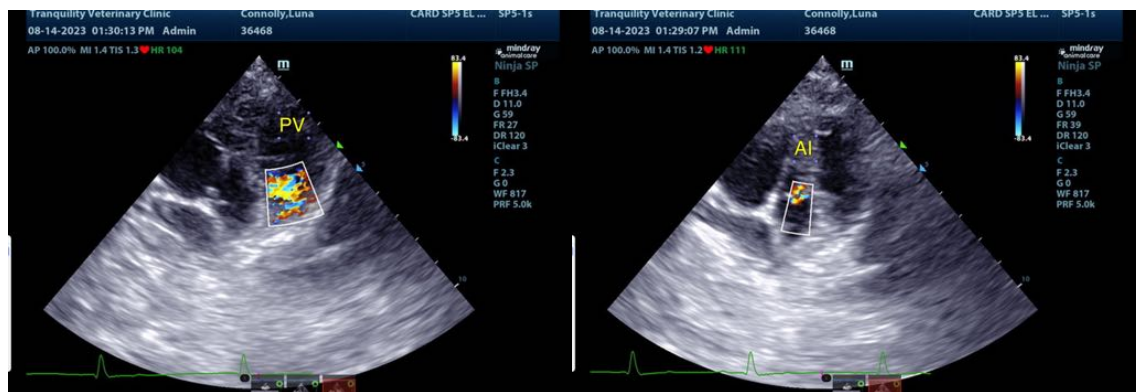
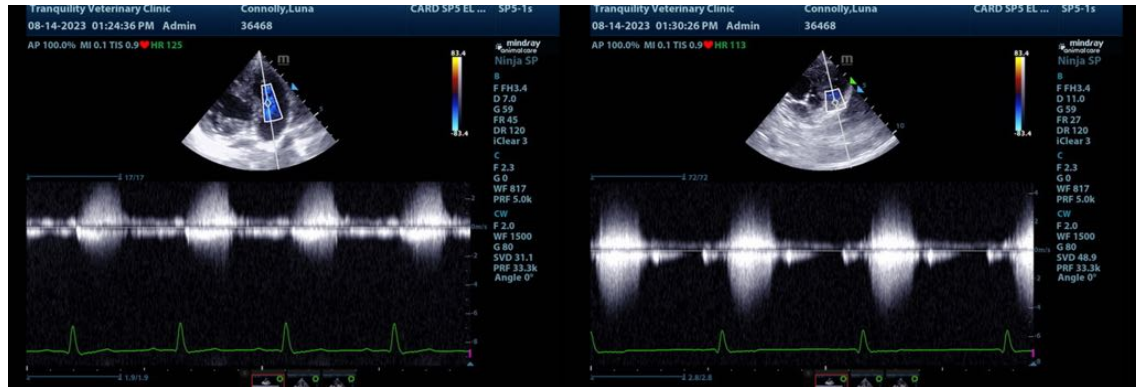
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Further imaging of the right ventricular outflow tract is recommended for clarification. At this time this is compensated.





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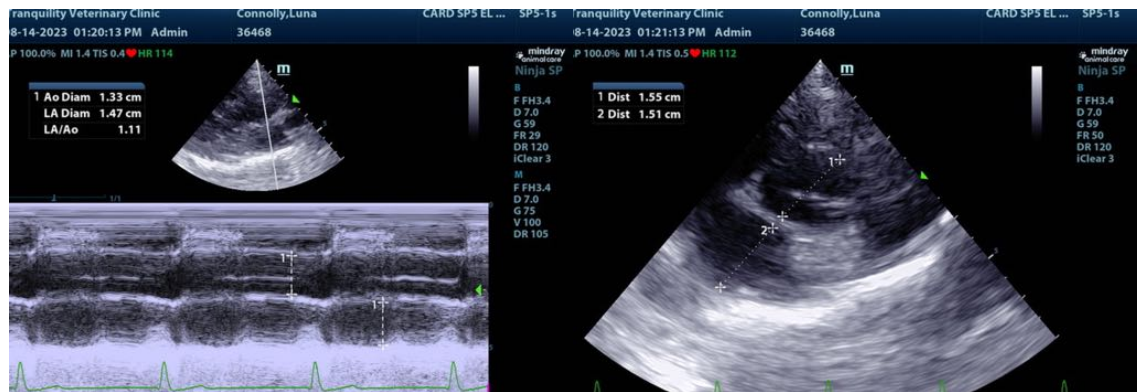
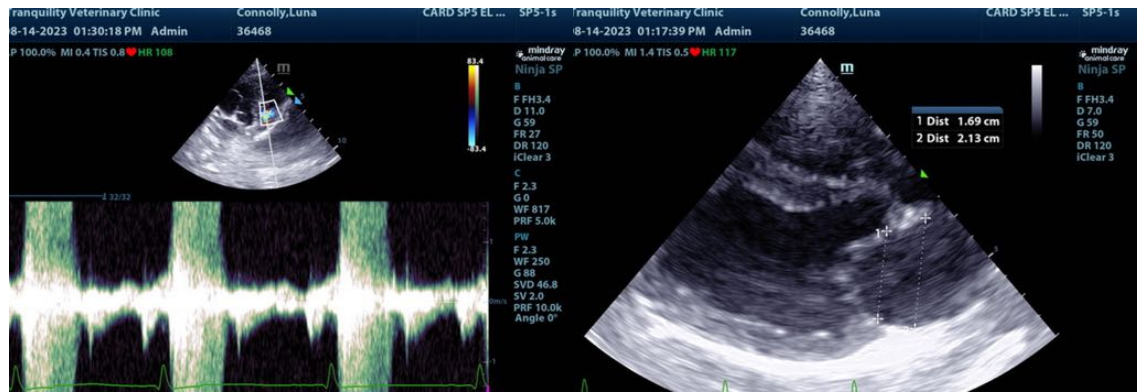
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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**  
info@SonoPath.com