



PATIENT

Cinnamon Sleighter

SPECIES

Canine

BREED

Havanese

SEX

Neutered Male

AGE

12 Years

WEIGHT

13.2 Pounds

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Rebecca Neis

HOSPITAL NAME

Animal Health Center-
Arkansas

REFERRING VET

Rebecca Neis

INVOICE

22392

DATE

5/8/23

PRESENTING CLINICAL SIGNS

History: Was seen at our associated hospital with his regular veterinarian 4/24 for dental cleaning and extraction(s). Experienced diarrhea, lethargy, and anorexia 4/28, was then seen by Dr. Neis after hours, was noted to have a loud heart murmur (heard on both sides of chest with a palpable thrill) and a rectal temperature of 104 F. Chest radiographs showed heart enlargement. Antibiotics and gastroprotectants were prescribed with instructions to follow up with regular veterinarian 5/1. The gastroenteritis and fever abated with treatment. Regular veterinarian prescribed benazepril and referred to Dr. Neis for cardiac ultrasound 5/8.

Abnormal PE/Chem/CBC/UA Results: 4/24 pre-op chem: low albumin 2.2 g/dL (2.7-4.4) low globulin 1.5 g/dL (1.6-3.6)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

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	<1.3	28-40	40-100	<0.6
PATIENT			1.4		45	--	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)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT				--	4.0	2.8	--

Cardiac Presentation

The echocardiogram for this patient presented excessive **left atrial size** expressed both in the LA/AO and LA max measurements. Echogenicity was normal. Thickened mitral valve was present. 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. The **left ventricular outflow** tract demonstrated subjective structural integrity. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses were noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology. 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 and diameter (approx.1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted. No echographically detectable evidence of infiltrative disease was visible. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.



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*Color flow doppler was not performed in this patient, however, morphologically, the heart appears to have stage-B-2 valvular disease.

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ULTRASONOGRAPHIC FINDINGS

- B-2 valvular disease

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Havanese

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

I recommend initiating Pimobendan 0.3 mg/kg BID. I recommend some consideration for endocarditis; however, the cardiac presentation is likely independent of the fever. Abdominal sonogram is recommended if not already performed to further define sources of fever. Fluid therapy, if to be utilized, should be utilized with caution, given that there is mild volume overload, particularly in the left atrium.

SEX

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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.

AGE

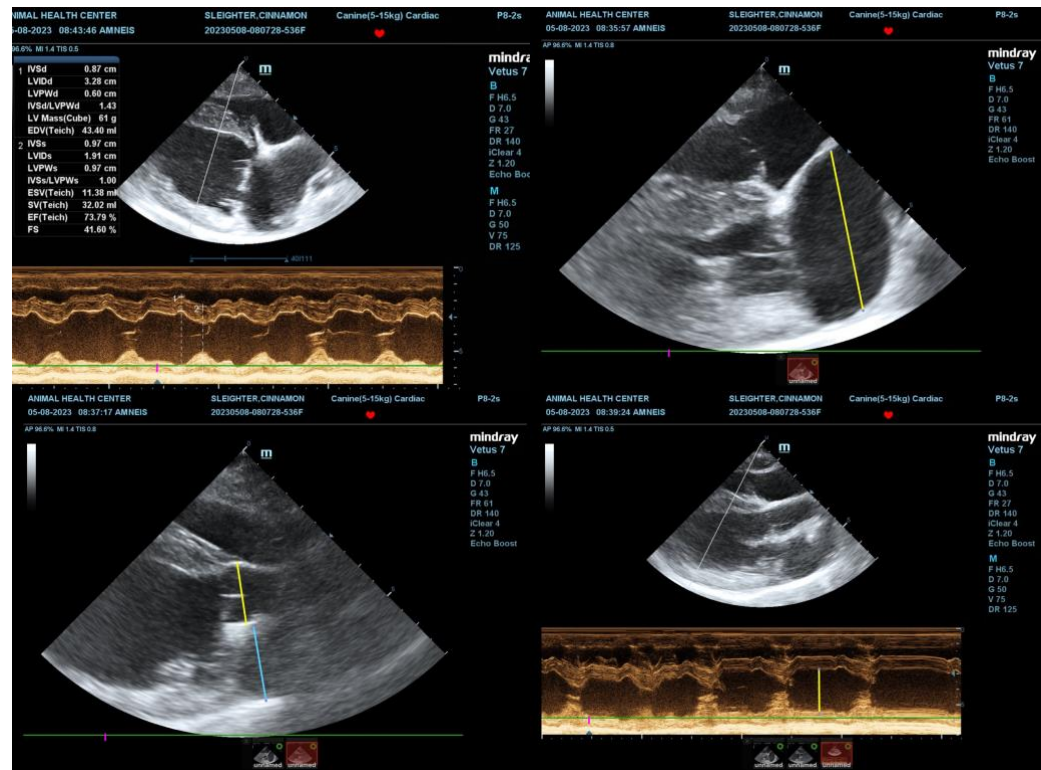
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I



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can be of any further assistance please contact me.

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