



**PATIENT PRESENTING CLINICAL SIGNS**

Prince Rodriguez Heart enlarged. Fluid in the chest?

**SPECIES** Abnormal PE/Chem/CBC/UA Results: MCV 60.3, MCH 20.3, WBC 26.50, Neut 22.51, Mono 2.72, Eos 0.05, MPV 14.7, ALT 258, ALP 384

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

**BREED**

Morkie

**SEX**

Neutered Male

**AGE**

9 Years 4 Months

**WEIGHT**

13.45 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Jessica Miller, RDMS

**HOSPITAL NAME**

Riverdale Integrative Veterinary Care

**REFERRING VET**

Dr. Kuo

**INVOICE**

44534

**DATE**

8/1/23

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	Up to 1.6	28-40	40-100	<0.6
PATIENT	5.5	1.5	1.3	1.57	39	72	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	BELOW	BELOW	BELOW	BELOW
PATIENT	94	1.44	1.2		2.7	2.78	

E-Wave = 0.7 cm

**Cardiac Presentation**

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. Minor **mitral** insufficiency noted with centralized jet. 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 normal laminar flow and subjective structural integrity. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. Trivial **tricuspid** insufficiency noted. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). 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. Bradyarrhythmia appeared to be present.

**ULTRASONOGRAPHIC FINDINGS**

- Stage B1 valvular disease without significant volume overload
- Bradyarrhythmia with excessive pauses



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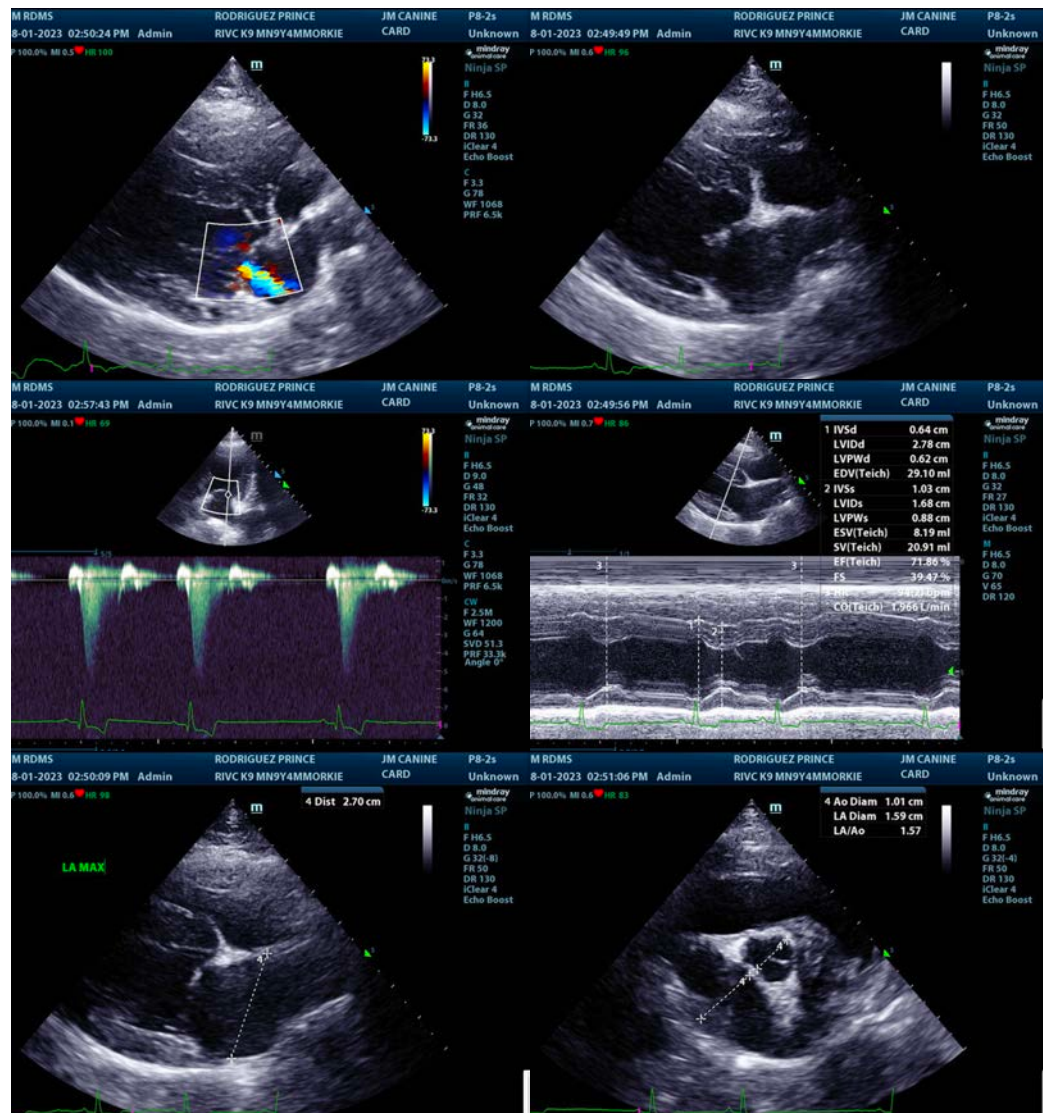
8/1/23

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

If the radiograph was taken during a diastolic period, then artificial enlargement of the heart will likely occur, yet there is no significant volume overload to treat. Blood pressures and EKG indicated.

The heart is stable without clinical disease. No overt contraindication for anesthesia of brief to moderate duration. I suggest Torbutrol premed, Propofol induction, Isoflor maintenance or similar protocol if anesthesia is desired. Blood pressure recommended if not already performed and target white coat negative systolic pressure of < 160 mmHg. If higher than this ACE-inhibitor is suggested to reach this level. Recheck echocardiogram is recommended in 6 months, earlier if murmur grade increases or clinical signs initiate.

*Radiographs: Minor cardiomegaly, chronic bronchial changes, minor excessive thoracic fat.*





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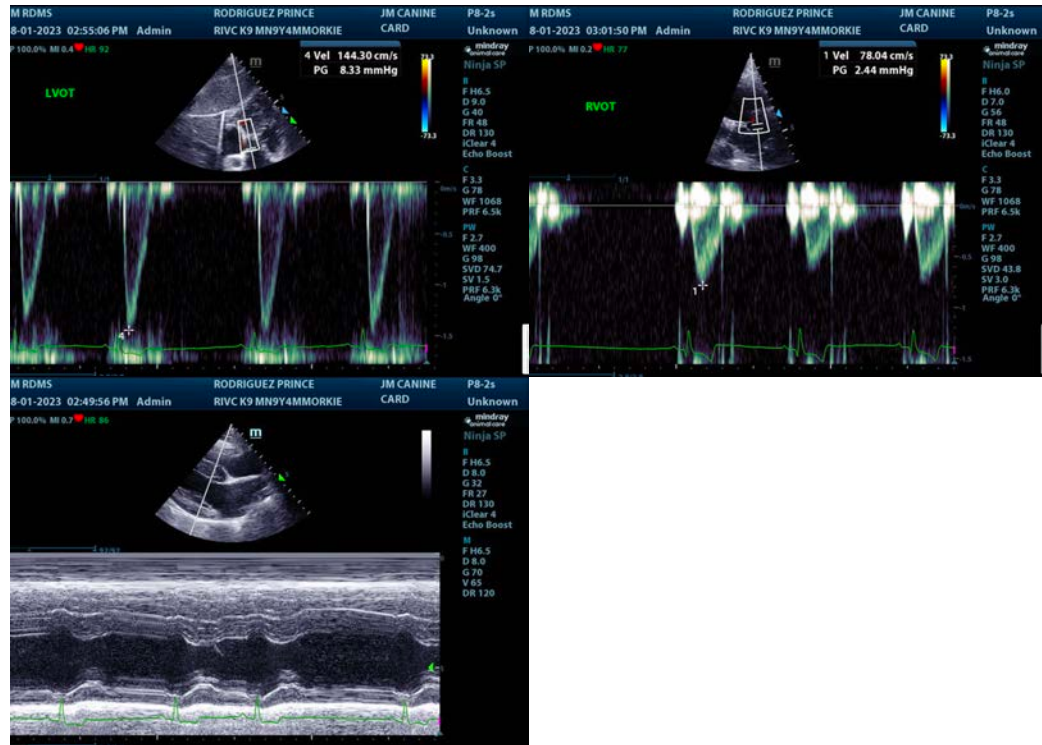
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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