



**PATIENT PRESENTING CLINICAL SIGNS**

Bella Hans History: History of coughing.

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

Canine

**BREED**

Jack Russell Terrier Mix

**SEX**

Spayed Female

**AGE**

10 years

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. **Mitral** valve insufficiency was noted and measured 5.0 m/sec. 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. **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. **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.

**WEIGHT**

13.5 lbs

**INTERPRETED BY**

Eric Lindquist, DMV DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Kelly Vazquez, CVT

**HOSPITAL NAME**

Northvale VC

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	<1.6	28-40	40-100	<0.6
PATIENT	5.0		NM	1.3	30	60	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	90	0.99	0.98	13.5	1.43 max	2.58	

**REFERRING VET**

Dr. Simon

**ULTRASONOGRAPHIC FINDINGS**

Stage B1 valvular disease.

**INVOICE**

92371

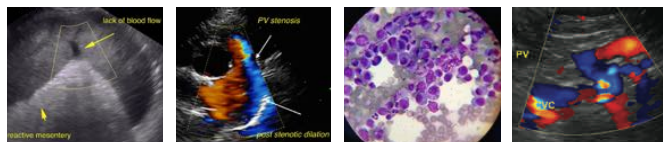
Mitral insufficiency, compensated.

**DATE**

10/13/21

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There is no evidence of volume overload. The cough is non-cardiogenic at this time. However, further decompensation of the mitral valve apparatus occurs then volume overload may cause cardiac cough.



**PATIENT**

Bella Hans

Primary respiratory protocol is recommended. If anesthesia is necessary, there is no overt contraindication to an anesthetic procedure. Suggested protocol includes Torbutrol premed, Propofol induction, and Isoflurane maintenance. Recheck echocardiogram in 6 months or earlier if murmur grade increases or clinical signs initiate.

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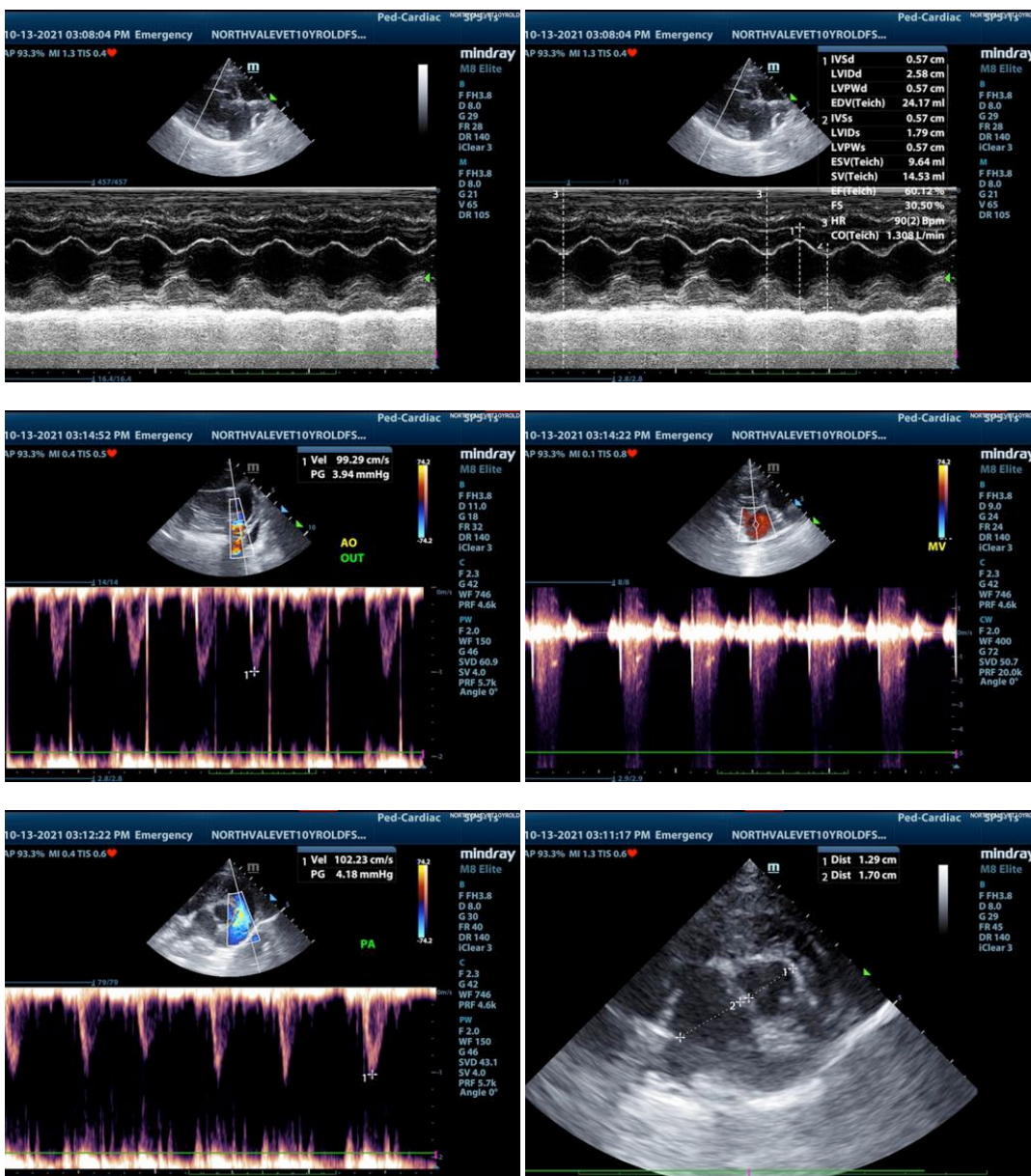
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**PATIENT**

Bella Hans

**SPECIES**

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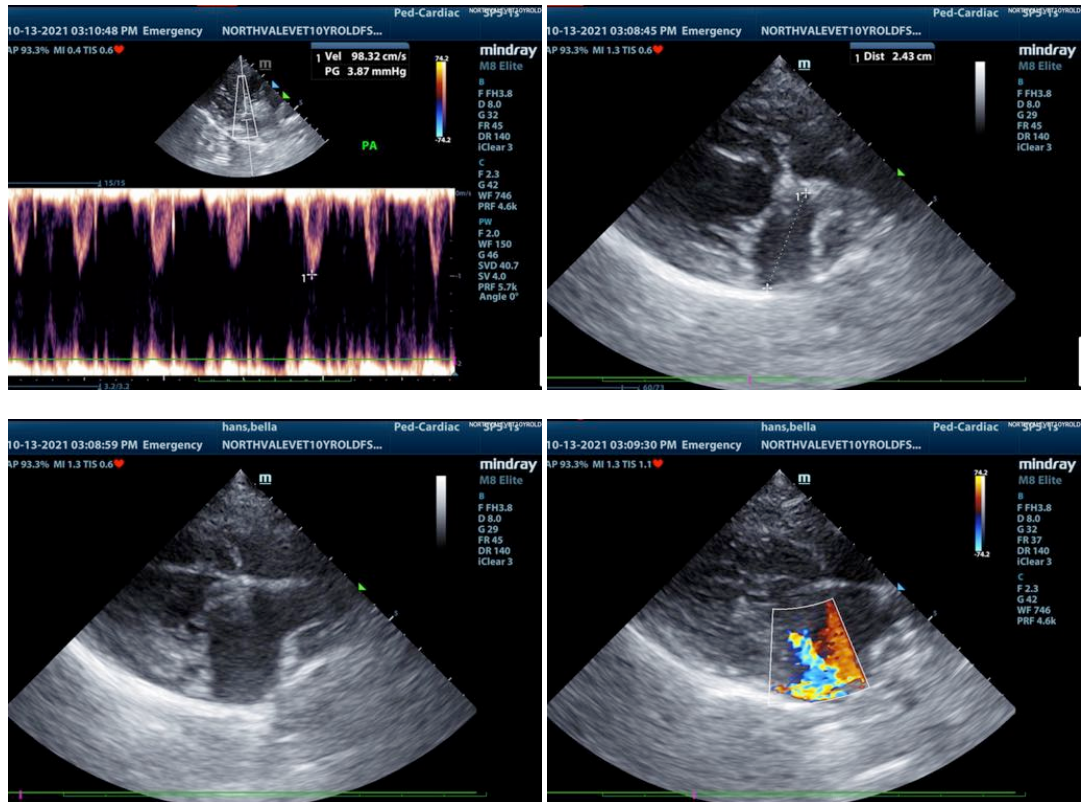
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**DATE**

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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 can be of any further assistance please contact me.

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