



**PATIENT**

Kenshen Hidaka

**SPECIES**

Canine

**BREED**

Maltese Mix

**SEX**

Male Neutered

**AGE**

13 years

**WEIGHT**

9lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

C. Belan, DVM

**HOSPITAL NAME**

Bowness Animal  
Clinic

**REFERRING VET**

Dr. Dhothar

**INVOICE**

29283

**DATE**

2/28/23

**PRESENTING CLINICAL SIGNS**

History: History of cyanotic episodes especially when placed in dorsal recumbency. Liver is enlarged. Heart rate is irregular and muffled on auscultation. Assessment for anesthetic for a dental procedure. Patient is diagnosed with Cushings and is on vetoryl. Assess prior to dental.  
-Sedation: butorphanol.  
-Radiographs: Show mild cardiomyopathy and VHS 11.  
-Abnormal PE/Chem/CBC/UA Results: Elevated ALP and cholesterol.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets with no prolapse into the left atrial lumen. Trace eccentric mitral regurgitation with no left atrial dilation. Normal LV diameter with adequate myocardial function. The tricuspid valve appears normal with no tricuspid regurgitation. Normal right atrial and ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities with laminar flow. No obvious aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses. Irregular rate and rhythm throughout.

**CARDIAC CHART**

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	NM	NA	1.2	1.3	64	94	0.2
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	50-130	1.1	0.9	4.1	1.2	2.0	0.5
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
<b>BODY WEIGHT DEPENDENT PARAMETERS</b>				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
<i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i>				10	1.50 (3.8)	3.27 (3.5)	2.06 (3.1)
				15	1.83 (2.0)	3.71 (2.4)	2.43 (2.1)
				20	2.02 (1.9)	4.14 (2.2)	2.80 (2.0)
				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
				40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
				50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Chronic degenerative valve disease causing trace mitral regurgitation. The disease is considered subclinical without an ausculted murmur or chamber enlargement. Lack of significant left atrial enlargement indicates the current risk for complication is low. No concurrent issues such as systolic dysfunction or pulmonary hypertension are noted in this study.



## PATIENT

Kenshen Hidaka

An arrhythmia is suspected in the history and an irregular rate and rhythm is noted throughout the study, with periods of bradycardia. No further comment can be made without an ECG tracing which should be submitted, certainly prior to anesthesia.

## SPECIES

Canine

No cardiac cause for cyanotic episodes is suspected. Additionally, no cardiomegaly is appreciated making the chest radiographs a normal variant.

## BREED

Maltese Mix

No cardiac medications are clearly indicated. Assessment of progression in the future will help predict long term prognosis, which is highly variable at this stage (B1). Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

## SEX

Male Neutered

Anesthetic risk is considered mild if needed **pending further ECG assessment**. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Mild IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

## AGE

13 years

## PLAN

Baseline ECG should be performed with an atropine challenge if indicated.

## WEIGHT

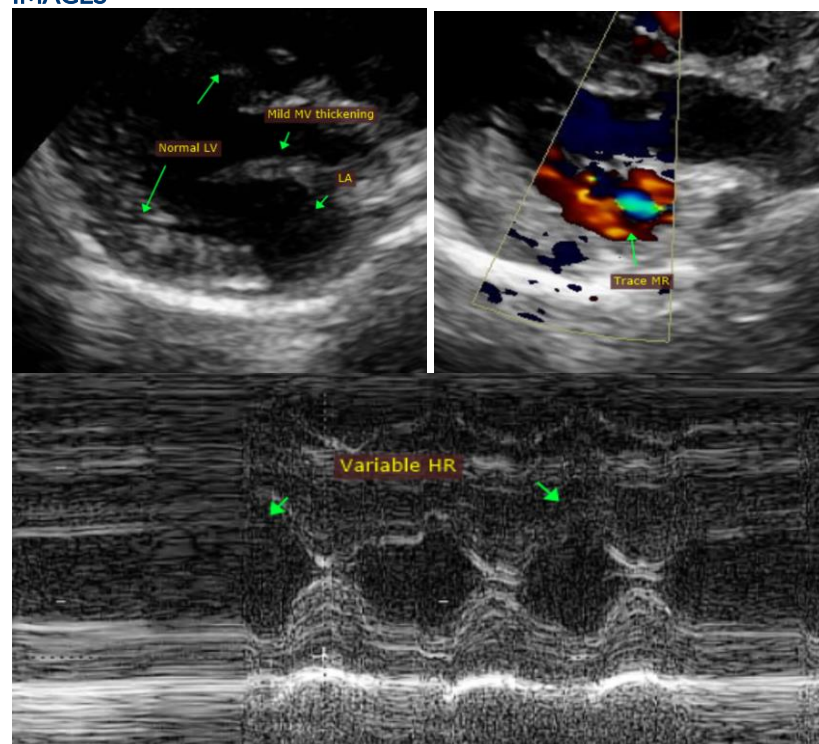
9lbs

Recommend conservative monitoring with a recheck echocardiogram in 6-12 months, sooner if any development of clinical signs.

## INTERPRETED BY

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

## IMAGES



## IMAGING PERFORMED BY

C. Belan, DVM

## HOSPITAL NAME

Bowness Animal  
Clinic

## REFERRING VET

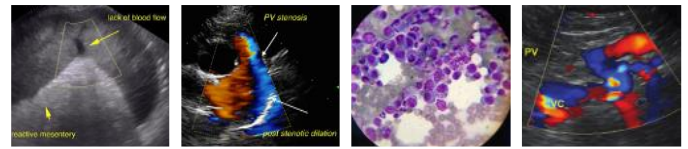
Dr. Dhothar

## INVOICE

29283

## DATE

2/28/23



**PATIENT**

Kenshen Hidaka

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.

**SPECIES**

Canine

Thank you for this referral. This report was generated using transcription software, and minor dictation errors may be present. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

**BREED**

Maltese Mix

**Maggie Machen Lamy, DVM**  
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)  
info@sonopath.com

**SEX**

Male Neutered

**AGE**

13 years

**WEIGHT**

9lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING  
PERFORMED BY**

C. Belan, DVM

**HOSPITAL NAME**

Bowness Animal  
Clinic

**REFERRING VET**

Dr. Dhothar

**INVOICE**

29283

**DATE**

2/28/23