


PATIENT

Jack Jackson

PRESENTING CLINICAL SIGNS

History: Grade 1-2 murmur. Assess prior to dental.

SPECIES

Canine

BREED

Bull Terrier

SEX

Male Neutered

AGE

6 years

WEIGHT

47.8lbs

INTERPRETED BY

 Maggie Machen Lamy,
 DVM DACVIM
 (Cardiology)

IMAGING PERFORMED BY

Kelly Reschny, RVT

HOSPITAL NAME

 Halton Peel Animal
 Hospital

REFERRING VET

Dr. Walters

INVOICE

22975

DATE

3/8/22

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Thickened mitral valve leaflets with no prolapse into the left atrial lumen. Mild central mitral regurgitation with mild to moderate left atrial dilation. Normal LV diameter with adequate myocardial function. Normal LV wall dimensions (1.0cm). The tricuspid valve appears mildly thickened with mild tricuspid regurgitation. Velocity consistent with early pulmonary hypertension. Normal right atrial and ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension. The pulmonic valve is normal in morphology and mobility. Mildly elevated pulmonic outflow velocities with laminar flow. No obvious pulmonic insufficiency. The aortic valve is mildly thickened, although the LVOT and leaflets are not well visualized. Mild stenosis is noted; max outflow velocity 2.5m/s. Mild AI seen. No pericardial or pleural effusion noted. No obvious cardiac masses.

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	3.2	1.3	1.9	35	65	0.35
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	120	2.5	1.8	21.7	3.0	3.9	2.5
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
BODY WEIGHT DEPENDENT PARAMETERS				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

The cause of the murmur is mild aortic stenosis. Congenital aortic stenosis is common in this breed; however, this dog's disease is mild with no evidence of pressure overload (no significant LVH). This type of obstruction is highly dependent on heart rate and volume status, and if this is a new exam finding baseline lab work is recommended. Additionally, the flow through the PA is mildly elevated, which may suggest volume changes. What is unusual is this patient also has mild mitral and tricuspid regurgitation with development of mild to moderate left atrial enlargement and early pulmonary hypertension. Whether



PATIENT

Jack Jackson

these reflect age-related disease, or a congenital issue remains unclear. Regardless, the finding of left atrial enlargement is surprising if mild aortic stenosis was the only issue. Close follow up is advised. No additional issues are identified.

SPECIES

Canine

Prognosis is guarded going forward, given the complexity of the issues. Treatment for valve disease using Pimobendan is somewhat contraindication with aortic stenosis; however, if there are any progressive changes going forward, this will become recommended. No medications are clearly indicated at this time. A baseline BP is recommended with institution of an ACE-I if >150mmHG, due to an aortic insufficiency.

BREED

Bull Terrier

From a cardiac standpoint, monitor for development of a labored breathing, exercise intolerance or collapse episodes, as AS patients are more predisposed to development of arrhythmias than to CHF. Omega fatty acid supplementation is recommended for this reason.

SEX

Male Neutered

AGE

6 years

Anesthetic risk is considered mild if needed. 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. Recommend prophylactic antibiotics for any orthopedic or dental procedure.**

WEIGHT

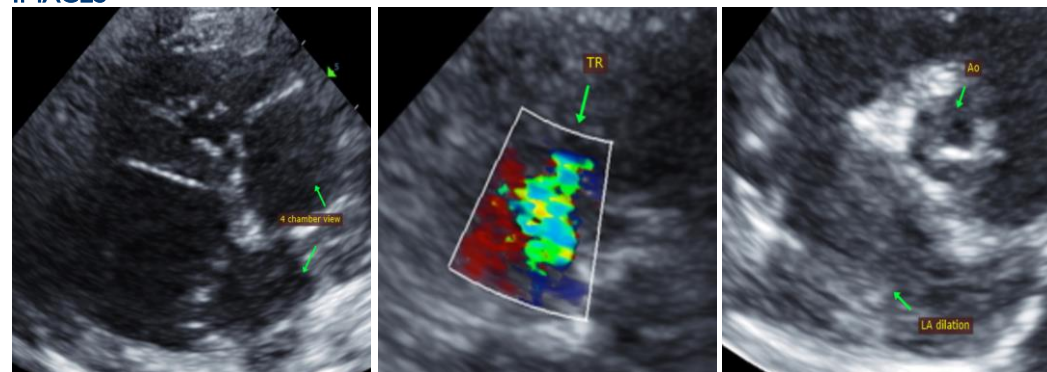
47.8lbs

Recommend recheck echocardiogram in 6-12 months, sooner if any clinical signs arise.

INTERPRETED BY

Maggie Machen Lamy,
DVM DACVIM
(Cardiology)

IMAGES



IMAGING PERFORMED BY

Kelly Reschny, RVT

HOSPITAL NAME

Halton Peel Animal
Hospital

REFERRING VET

Dr. Walters

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. 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.

INVOICE

22975

DATE

3/8/22

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