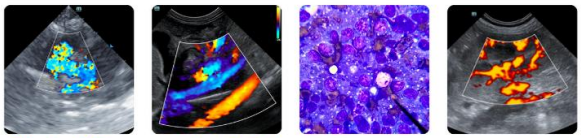


DATE

11.3.25

PATIENT

Jeremy Wisniewski

SPECIES

Rabbit

BREED

Lionhead

SEX

MN

AGE

2.8.20

WEIGHT

3.41lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

HOSPITAL NAME

Warm & Fuzzy VC

REFERRING VET

Dr. Urie

INVOICE

45628

PRESENTING CLINICAL SIGNS

History: Persistent grade 3/6 systolic heart murmur. Assess prior to dental.
-Pertinent abnormal PE/Chem/CBC/UA Results: Moderate leukocytosis with lymphocytosis suspected secondary to tooth abscess. Minimal elevation to ALP and ALT.
-Current medications: Meloxicam Oral Susp. 1..5mg/mL Give 0.25 mL by mouth once daily. SMZ/TMP Susp. (48mg/mL) Give 0.5mL by mouth twice daily for 30 days. Make sure pet is well hydrated.
-Sedation used: Not required to complete full diagnostic ultrasound.
-Pertinent previous ultrasound results: No previous.
-STAT: Not requested.
-Imaging performed by: Stephanie Warga RDCS, RVT.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild thickening of mitral valve leaflets with no prolapse into the left atrial lumen. No obvious mitral regurgitation with no left atrial dilation. Normal MR velocity. Subjectively increased LV diameter with low normal myocardial function. The tricuspid valve appears mildly thickened with trace/mild tricuspid regurgitation. Mildly elevated velocity. Mild right atrial enlargement. Mild RV prominence. A small ASD is suspected on color flow (r/o PFO) in some views, although the finding is inconclusive. The pulmonic valve is mildly thickened with mildly elevated flow through the region. Color flow suggests that the abnormal flow begins in the RV/RVOT (rule out VSD v DRVOTO versus mild stenosis v other). Trace PI. Aortic valve is normal in morphology and mobility. Normal aortic outflow velocities with laminar flow. No obvious aortic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses. Premature beats noted.

CARDIAC CHART

CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LVWd (cm) (Moise, Pipers)	FS (%)	EF (%)
NORMAL PARAMETER	------	150-240	3.5-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	1.5	190	0.25	1.4	0.25	33	66
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Swe) (Abbott)	LA 2D short axis Base view (cm) (Abbott)		LVOT VEL (m/s)	RVOT VEL (m/s)	E max (m/s)
NORMAL	<1.5	<1.3	<1.2		<1.6	<1.3	<0.9
PATIENT	NM	1.2	0.7		0.6	3.0	NM

Adapted from June Boon, Veterinary Echocardiography,1998
Abbott J & MacLean H JVIM 2006;20: 111-119, Moise et al. Am J Vet Res 47:1476, 1986. Pipers et al. Am J Vet Res 40:882, 1979.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Mild abnormalities are seen here. First, there is turbulence and mildly increased flow through the RVOT and pulmonary artery. Whether this is a supravalvular stenosis, increase flow as is seen with a VSD, or some other issue cannot be determined. There is also mild TR with a mildly elevated velocity, likely secondary to this phenomenon. Despite this, the right heart is only mildly enlarged suggesting

this may be of little hemodynamic significance in a 5yo animal. The LV also appears slightly dilated with borderline dysfunction. Finally, premature beats are noted and an ECG is suggested.

Given these findings, referral for advanced imaging is recommended in this case. It is suspected that this patient has a congenital abnormality that was simply not auscultable previously, and a definitive diagnosis will be helpful to determine anesthetic risk. As was mentioned prior to the evaluation, my experience with this species is limited, and an evaluation by an attending Cardiologist would be ideal.

Continued assessment of progression in the future will help predict long term prognosis, which is guarded at this stage. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

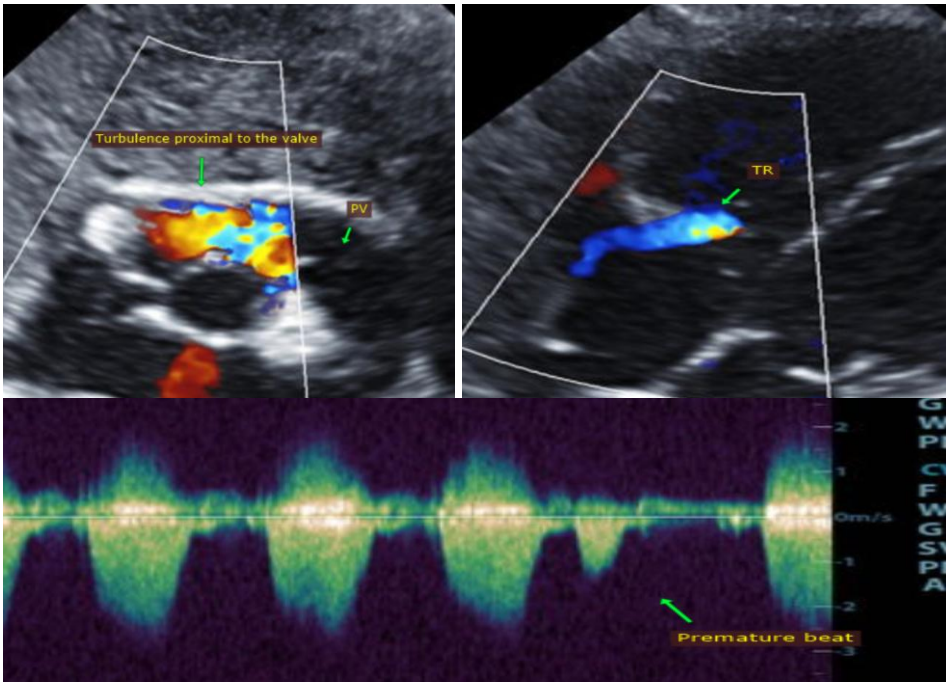
Ideally referral should be considered prior to proceeding with anesthesia. If declined, anesthetic risk is considered moderate if needed. Cardiac protective drug choices are recommended. Pre-oxygenate for 5-10 minutes prior to induction. Monitor for arrhythmias, hypotension, and hypoxia both intra and 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.

PLAN

Recommend referral in this case.

Recommend conservative monitoring with a recheck echocardiogram in 6-12 months, sooner if any development of clinical signs. Ideally consider referral to a local Cardiologist with species experience if possible.

IMAGES



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.

Maggie Machen Lamy, DVM
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