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PATIENT

Rocket Becquet

SPECIES

Ferret

BREED**SEX**

Female Spayed

AGE

1.11.15

WEIGHT

734g

INTERPRETED BYMaggie Machen Lamy,
DVM, DACVIM
(Cardiology)**IMAGING PERFORMED BY**

Andi Parkinson, RDMS

HOSPITAL NAMEChadwell Animal
Hospital**REFERRING VET**

Dr. Gold

INVOICE

22523

DATE

2.11.22

PRESENTING CLINICAL SIGNS

History: Annual exam. Grade III/IV heart murmur and arrhythmia.

-Pertinent abnormal PE/Chem/CBC/UA Results: Enlarged heart; increased ALT, increased SAP.

-Sedation used: Not required to complete full diagnostic ultrasound.

-STAT: Not requested

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild diffuse thickening of mitral valve leaflets with no obvious prolapse into the left atrial lumen. No mitral regurgitation with normal left atrial dimension. Borderline LV dilation 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 pulmonic insufficiency. Severe aortic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses. Irregular rate and rhythm throughout.

CARDIAC CHART

CARDIAC PARAMETERS	BODY WEIGHT (g)	HR (BPM)	IVSd (cm) <small>(Moise, Pipers)</small>	LVIDd (cm) <small>(Moise, Pipers)</small>	LWVd (cm) <small>(Moise, Pipers)</small>	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	3.5-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	734	256	0.36	1.2	0.37	49	84
FELINE CARDIAC PARAMETERS	LA/AO <small>(Boon)</small>	LA/AO HEART BASE (Swe) <small>(Abbott)</small>	LA 2D short axis Base view (cm) <small>(Abbott)</small>	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	1.0	0.8	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

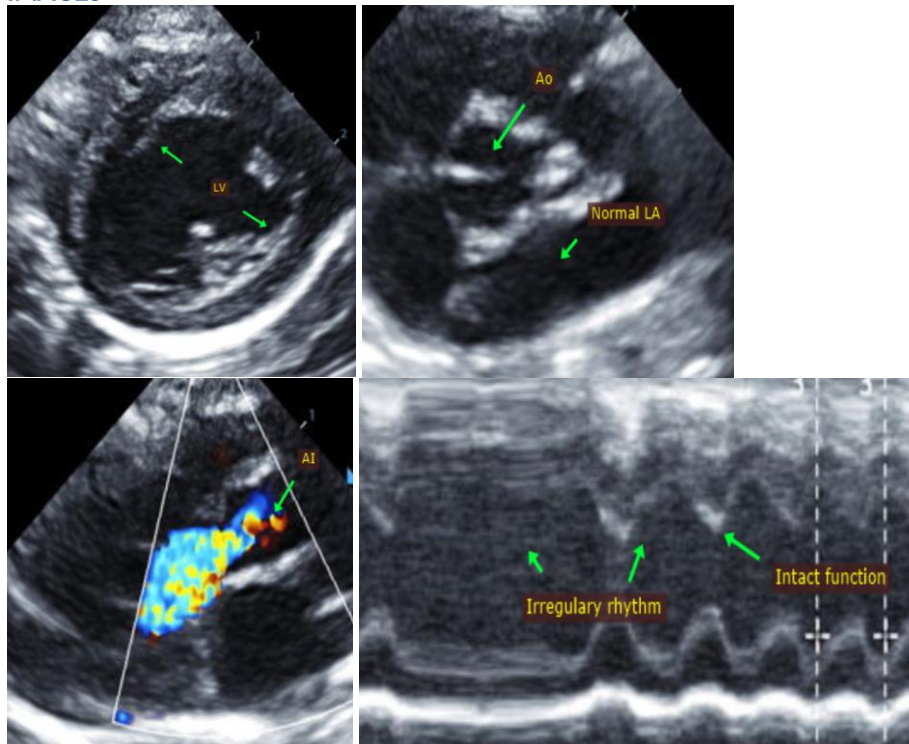
The only abnormality identified is severe aortic insufficiency with borderline LV enlargement. No specific lesion is noted, and this is presumed to be either a primary valve degeneration issue, or potentially secondary to systemic hypertension. Regardless, the quantification is significant although there is no significant LA dilation present. 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. This does not explain a systolic heart murmur, which remains open. Finally, an irregular rate and rhythm are noted throughout, and a baseline ECG is recommended.

In an asymptomatic ferret with no significant left atrial enlargement, no cardiac medications are clearly indicated. That being said, if there is any suspicion of or predisposing factors for hypertension (renal disease, etc.), vasodilation using an ACE-I may be reasonable if patient is easily medicated. An alternative approach is to monitor for progression in 6 months prior to medicating, given a normal LA dimension. Assessment of progression in the future will help predict long term prognosis, which is highly variable at this stage. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

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 conservative monitoring with a recheck echocardiogram annually, sooner if any development of clinical signs.

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.

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