


PRESENTING CLINICAL SIGNS

History: Grade II/VI left-sided murmur with radiation to the right. BNP 1328. Pre-anesthetic evaluation.

DATE

5/9/22

ECHOCARDIOGRAPHIC FINDINGS

2D, M-mode, and Doppler study.

PERFORMED BY:

Dr. Brian Barnes

INTERPRETED BY

 Keith Blass, DVM,
 MS, DACVIM
 (Cardiology)

Left atrial size is normal. The mitral valve is normal. Left ventricular dimensions are normal. Left ventricular systolic function measures near the lower limit of normal. The aorta and aortic valve appear normal, though there is mildly increased flow velocity in the ascending aorta, as well as trace aortic insufficiency. Right atrial and right ventricular dimensions are normal. The tricuspid valve appears normal, though very mild tricuspid regurgitation is present. TR velocity does not suggest the presence of pulmonary hypertension. The pulmonary artery and pulmonic valve appear normal, though trace pulmonic insufficiency is present. No shunting lesions are visualized. No pericardial effusion or cardiac masses are seen.

ECG during echo: Sinus rhythm with sinus pauses and ventricular escape beats

PATIENT

Figg Roxburgh

 LA - 42.7 mm
 LVIDd - 50.3 mm
 LVIDs - 37.2 mm
 FS - 26%
 RA - 44.6 mm
 LVOT - 2.24 m/s
 RVOT - 1.17 m/s
 TR - 2.65 m/s

SPECIES

Canine

ASSESSMENT/RECOMMENDATIONS
BREED

Bouvier de Flanders

This examination demonstrates mildly increased flow velocity in Figg's aorta as the cause of her left-sided murmur. As Figg is already 19 months old and the velocity is less than 2.5 m/s, it appears that it is a functional/innocent velocity increase rather than being due to the presence of subaortic stenosis. Also seen in this exam is very mild regurgitation of blood across Figg's tricuspid valve, which is likely the cause of her murmur being heard on the right side. The hemodynamic effects of the regurgitation are negligible, and it's unlikely that it will become clinically relevant over time.

SEX

F

Figg's ECG shows the presence of an intermittent arrhythmia, as she has occasional sinus pauses that are ended by ventricular escape complexes. Given this, I'm concerned that Figg could be suffering from sinus node dysfunction, though elevated vagal tone cannot be ruled out as a possible cause. Figg's pauses do not appear to be long enough to result in exercise intolerance or syncope, however, careful monitoring for these signs is recommended going forward.

AGE

19 mo

WEIGHT

34.3 kg

An atropine response test (0.04 mg/kg IV followed by ECG 15-20 minutes later) is recommended to determine whether Figg's sinus pauses are due to elevated vagal tone.

HOSPITAL NAME

Westview VH

It's unclear how high Figg's risk for anesthesia is at this time, as it's unclear if her sinus pauses/escape rhythm will be abolished with atropine. If it is, then her anesthetic risk would likely be low, and premedicating with atropine or glycopyrrolate and avoiding the use of alpha-2 agonists should allow her to maintain an adequate heart rate. Figg's risk would be higher, perhaps significantly, if sinus node dysfunction is present, and it could potentially be necessary to attach transthoracic pacing patches during anesthesia as a precaution.

REFERRING VET

Dr. Barnes

No therapy is recommended based on Figg's echocardiogram. Therapy for her arrhythmia is likely



not necessary at this time, however, it could be if she experiences hemodynamically significant bradycardia in the future.

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A recheck ECG is recommended in 3 months. A recheck echocardiogram is recommended in 6 months.

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Figg Roxburgh

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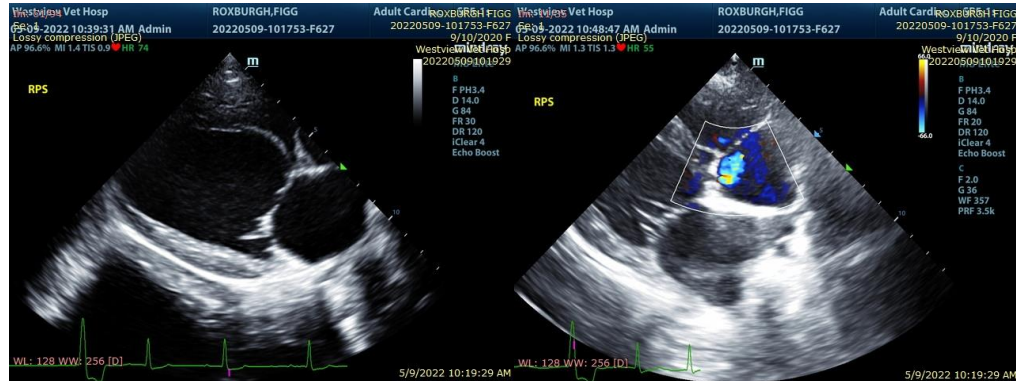
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REFERRING VET

Dr. Barnes



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.

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