



PD006

Paediatric Cardiology & Congenital Heart Disease • Poster Presentation

DIAGNOSTIC LIMITATIONS OF EYEBALLING EJECTION FRACTION IN RHEUMATIC HEART DISEASE: A CASE REPORT OF MISSED SEVERE SYSTOLIC DYSFUNCTION

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Background Rheumatic heart disease (RHD), a global health challenge disproportionately affecting children in low income countries, is a chronic, acquired valvular heart disease. Estimating cardiac ejection fraction (EF) by "eyeballing" in children with rheumatic heart disease (RHD) may have significant dangers due to the inherent complexities and variability of the condition.

Case Report We present a 12 year old boy with a recurrent history of easy fatiguability, breathlessness, weight loss and leg swelling for over 2 years. He was found to have rheumatic mitral and aortic valve with severe mitral and aortic regurgitation. Double valve replacement surgery was done by a team of United States trained cardiac surgeons. Pre - operative echocardiography estimation of his cardiac output by eyeballing was approximately 45%. Following replacement of the mitral and aortic valves with mechanical valves, his EF dropped to about 5% despite no intraop complication. He was placed on 4 inotropics starting from the theatre and closely monitored in the ICU. He regained full consciousness and his EF increased from less than 5% to 10 to 15% in less than 7 days and he was discharged. Further care was continued with the paediatric cardiologist. He had no organ damage and his EF improved significantly over 2 years.

Conclusion While estimation of LVEF via eyeballing is still widely used, caution is required in RHD especially with severe mitral or aortic regurgitation which can lead to subtle changes in chamber size, wall thickness, global contractility with significant regurgitant volume that might be missed by visual inspection.

Keywords: Visual estimation, stroke volume ratio, valvular heart disease