

WORLD CONGRESS ON RHEUMATIC HEART DISEASE

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Title: Clinical presentation, echocardiographic findings and short term outcomes of children admitted with rheumatic heart disease in a tertiary care hospital in Khartoum -Sudan.

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Background & Aims: Rheumatic heart disease (RHD), is a chronic valve disease that follows acute rheumatic fever (ARF), an immune reaction to group A streptococcal (GAS) infection. RHD is the most common cause of acquired heart disease in children and young adults globally. Few studies described the hospital course and complications of children admitted in highly endemic countries. We describe the clinical and echocardiographic features and short term outcomes in Sudanese children.

Methods: This is a hospital based cross sectional retrospective study conducted at Jafar Ibn Auf Children's Hospital in the period January 2019-December 2020. All children (3-18 years) admitted with the diagnosis of RHD confirmed by echocardiography (echo) were included in the study. Demographic, clinical and echo data including hospital outcomes were registered from hospital records after obtaining ethical approval.

Results: Seventy eight patients were included in the study, mostly (33%) from Darfur states. Cardiac manifestations at presentation heart failure (77%) and most patients (66%) were in New York Heart Association (NYHA) Class IV. Recurrent rheumatic fever was present in 38.5% of patients. The most common echo findings were combined mitral regurgitation (MR) and aortic regurgitation (AR) in 51% followed by isolated MR in 12% of patients. Eighty five % of MR and 45% of AR lesions were severe. Pulmonary hypertension was present in 79%. Hospital outcomes include infective endocarditis in 16%, followed by arrhythmia and cardiogenic shock both in 8% of patients. Hospital mortality was 4 %.(Figure1)

Conclusions: The clinical and echo patterns of RHD in hospitalized children in this setting are severe with a significant rate of complications and hospital mortality. Efforts need to be directed to early detection and management at primary care settings.