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Title: Pattern of Rheumatic Heart Disease among Patients Attending at a Tertiary Care Hospital in Somalia: First Report from Somalia

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Background & Aims: Rheumatic heart disease (RHD) is the leading cause of valvular heart disease in underdeveloped nations. It remains a significant public health issue in sub-Saharan African countries. This study aimed to determine the pattern, severity, and complications of RHD in Somalia.

Methods: This was a retrospective cross-sectional study of all patients diagnosed with rheumatic heart disease. A total of 8526 echocardiographic examinations were done in our center over a two-year study period from January 2020 to December 2021. Patients with congenital cardiac disease, post-operative cases, myxomatous and old age degenerative disease were all excluded.

Results: Of 433 patients, 286 (66%) were female, and the mean age was 46.5 ± 20.3. The isolated mitral valve (MV) affected 222 (51%). Dual involvement of mitral and aortic valve (AV) was present in 95 (22%). Overall isolated or combined valve involvement, mitral regurgitation (MR) was the most common valve lesion 345 (80%), followed by mitral stenosis (MS) 160 (37%). According to the severity of lesions, severe MR was 230 (66.7%) patients, followed by severe MS (n=129, 80.1%). The most common complication of RHD depicted in our study were secondary pulmonary hypertension and enlarged left atrium, 24% & 20%, respectively.

Conclusions: In conclusion, in our study majority of RHD patients were females. Both isolated and in combination, MV was the most commonly affected, and mitral regurgitation was the most common valvular lesion. In our study high percentage of patients already had complications at the time of diagnosis.