

# WORLD CONGRESS ON RHEUMATIC HEART DISEASE

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**Title:** MITRAL VALVE SURGICAL STRATEGIES FOR PATIENTS IN HAITI: EXPERIENCES AND OUTCOMES

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**Background & Aims:** Haiti Cardiac Alliance (HCA), working with partners, has facilitated heart surgery for 541 Haitian children and young adults from its founding in July 2013 to April 2023; 98 of these patients had presumed or confirmed Rheumatic Heart Disease (RHD), the majority involving the mitral valve. Given resource constraints and medical follow-up challenges in low-income country (LIC) settings, we felt it was important to look at the longer-term post-operative outcomes of our mitral patients, to develop more evidence for the trade-offs between mitral valve repair, mechanical replacement, and bioprosthetic replacement.

**Methods:** Upon referral to HCA, patients were diagnosed by echocardiography and clinical examination. The determination of whether valvular heart disease was likely rheumatic in origin was made based upon a combination of echocardiographic evidence; history; and blood analysis to check for active rheumatic activity. Patients were initially controlled medically and triaged for surgery as appropriate. Three strategies were used as initial surgical therapy: mitral valve repair, mitral valve bioprosthetic, and mitral valve mechanical replacement. The surgical choice was made by the operating surgeon in consultation with patients and families, taking into account the extent of mitral pathology as well as the patient's likelihood of adherence to long-term anticoagulation. We followed patients from time of operation (median length of follow-up 56 months; Q1 43 months, Q3 79 months), providing long-term clinical follow-up including anticoagulation. Endpoints were initial success, need for reoperation, and overall mortality. The Haitian National Bioethics Committee approved this study.

**Results:** Between July 2013 and April 2023, HCA facilitated surgery for 98 children and young adults with presumed or confirmed Rheumatic Heart Disease (RHD). Of these 98, 83 underwent procedures that included repair or replacement of the mitral valve. 10 of these 83 patients (8%) were lost to contact post-operatively leaving a cohort of 73 patients to analyze. Overall survival rate over this ten-year period for the entire cohort treated in this stepwise fashion was 87.6%. Only one MV repair patient required urgent early reoperation. There were no deaths within 30 days of surgery.

**Conclusions:** In this young group of RHD patients, the approach of evaluation, medical follow-up and triaged surgical treatment yielded an excellent overall survival rate. Among mitral surgery patients, requirement for reoperation was higher for repair than replacement. Mortality was higher with mechanical replacement, due in part to the occurrence of bleeding, which was responsible for 4 of the 6 deaths in this cohort. These results come from a relatively low number of patients, but suggest that in LIC settings, challenges of anticoagulation and reoperation mandate further investigation to optimize the initial surgical approach for young patients with rheumatic MV disease.