

Prevalence type and risk factors for arrhythmias among children with heart diseases receiving treatment from Muhimbili National Hospital Dar es Salaam Tanzania.

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Background:

Children with heart diseases in Tanzania develop many complications one of which is arrhythmias. The clinical relevance of each arrhythmia varies depending on its duration, pre-existing cardiac problems as well as presence of other comorbidities. Arrhythmia is one of the common causes for illness and death among patients with heart diseases.

Study Objective:

The main objective of this study was to determine the prevalence, type and risk factors for cardiac arrhythmias among children with heart diseases in Dar-es- Salaam Tanzania. Materials and Methods: The study was a cross-sectional hospital-based study involving children aged 0-15 years with heart diseases confirmed by an Echocardiography. ECG, serum electrolytes and Full blood picture were done in all study children. SPSS software version 20.0 was used for data analysis.

Results:

Prevalence of arrhythmias was 60/178(33.5%) among children with heart diseases. Most prevalent forms of arrhythmias were sinus tachycardia, sinus arrhythmias, and supraventricular tachycardia which accounted for 12.3%, 5.6%, and 3.9% respectively. The most common heart lesion in this study was ventricular septal defect. Age above 5 years and digoxin use were independently associated with arrhythmias, (p- Value<0.001, 0.02, 95%CI, 0.1-0.4, 1.2-8.3) respectively.

Conclusion:

The study found prevalence of arrhythmias to be high. Among prevalent forms of arrhythmias identified in this study were sinus tachycardia, sinus arrhythmia and supraventricular tachycardia. Children above 5 years of age and use of digoxin were found to be independent predictors of arrhythmias. Recommendations: The findings from this study will be shared with policy makers of JKCI and other health institutions where these patients are referred from to enable them develop some guidelines and policies to reduce the high burden of morbidity and mortality from arrhythmias in children with congenital heart diseases. It is recommended to conduct ECG routinely in all children with heart diseases irrespective of their congenital heart lesion for early diagnosis and treatment. Children who present with arrhythmias should thoroughly be evaluated for the underlying causes for prompt management.
