COVID-19 is an emerging, rapidly evolving situation.

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Congenital heart disease in school children in Lagos, Nigeria: Prevalence and the diagnostic gap

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Abstract

Congenital heart disease (CHD) in low-and-middle income countries (LMIC) is often characterized by late presentation resulting from inadequate screening and healthcare access in these regions. Accurate estimates of the burden of CHD among school children are often lacking. The objective of this study was to determine the prevalence and distribution of CHD among school children in two communities (urban and semi-urban) in south western Nigeria. Using clinical assessment and portable echocardiography, 4107 school children aged 5 years to 16 years in Lagos, Nigeria, were selected using a multistage sampling procedure and screened for CHD. Diagnosis of CHD was made after echocardiography. Children identified with CHD were referred to a tertiary hospital for appropriate cardiac care. The 4,107 children screened had a mean age of 11.3 ± 2.7 years and 53.7% were females. Twenty seven children had echocardiography-confirmed CHD, representing a prevalence of CHD among school children in Lagos, Nigeria of 6.6 per 1000 children. Acyanotic CHD constituted 96.3% of detected cases. Two children diagnosed with CHD (Tetralogy of Fallot and severe pulmonary valve stenosis respectively) had successful intervention. The prevalence of previously undiagnosed CHD among school children in Lagos Nigeria is substantial and highlights gaps in the health care system and school health programs. Echocardiographic screening of school children provides an opportunity for missed early diagnosis and treatment of CHD and reduces the prevalence of first-diagnosed CHD in adulthood. Therefore, focused clinical examination of school children followed by echocardiography is a strategy that could bridge this diagnostic and treatment gap in CHD.

Keywords: Congenital Heart Disease; Nigeria; echocardiography; prevalence; school children; screening.