Clinical Epidemiology and Management of Congenital Heart Defects in a Developing Country

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Muenke M, Kruszka PS, Sable CA, Belmont JW (eds): Congenital Heart Disease: Molecular Genetics, Principles of Diagnosis and Treatment. Basel, Karger, 2015, pp 46-56

https://doi.org/10.1159/000375204

Abstract
Congenital heart defects (CHD) remain one of the most common categories of birth defects worldwide. In many developing countries, high early childhood mortality and limited diagnostic facilities often obscure the true scope of the problem. In this review, we provide an overview of the clinical epidemiology and management of CHD in a developing country: Nigeria, Africa's most populous country. We describe the types of CHD and the clinical presentation, echocardiographic diagnosis, management, and outcome of CHD. Ventricular septal defects are the commonest CHD reported in Nigeria while tetralogy of Fallot is the commonest cyanotic CHD. Their etiology is often unknown, although the congenital rubella syndrome and Down syndrome account for a significant minority of cases. Thus far, there is no modern genetic study of CHD in Nigeria. Diagnosis is often delayed, with only about half of CHD cases getting diagnosed within the 1st year of life and up to 10% diagnosed in adulthood. Echocardiography has played a major role in improving diagnosis. Management remains challenging, but a number of initiatives (especially by nongovernmental organizations) provide access to corrective surgery for a select few. The field of CHD in Nigeria offers opportunities for research into etiology, natural history, clinical management, and outcomes.

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Bibliographic Details

References


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Abstract

Congenital heart defects (CHD) remain one of the most common categories of birth defects worldwide. In many developing countries, high early childhood mortality and limited diagnostic facilities often obscure the true scope of the problem. In this review, we provide an overview of the clinical epidemiology and management of CHD in a developing country: Nigeria, Africa's most populous country. We describe the types of CHD and the clinical presentation, echocardiographic diagnosis, management, and outcome of CHD. Ventricular septal defects are the commonest CHD reported in Nigeria while tetralogy of Fallot is the commonest cyanotic CHD. Their etiology is often unknown, although the congenital rubella syndrome and Down syndrome account for a significant minority of cases. Thus far, there is no modern genetic study of CHD in Nigeria. Diagnosis is often delayed, with only about half of CHD cases getting diagnosed within the 1st year of life and up to 10% diagnosed in adulthood. Echocardiography has played a major role in improving diagnosis. Management remains challenging, but a number of initiatives (especially by nongovernmental organizations) now ensure access to corrective surgery for a select few. The field of CHD in Nigeria offers opportunities for research into improved etiological history, clinical management, and outcomes.

In many developing countries (such as Nigeria), congenital malformations are often viewed as less of a priority than communicable diseases, malnutrition, and perinatal conditions, which account for much of the morbidity and mortality observed in such societies. Nonetheless, congenital malformations remain important clinical problems, occurring frequently enough and often posing appreciable burdens on health care systems, which are often ill prepared to manage such complex conditions. Indeed, the first studies of congenital heart defects (CHD) in Nigeria were reported in the 1960s [1] and several other studies [2-16] followed describing various aspects of CHD. The first study of the preva-
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