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The Epidemiology of Congenital Heart Disease in Saudi Arabia: A Systematic Review

Ashraf A El-Metwally, Amirah M Alenezi, Nada M AlBwardi, Anna Ali, Mowafa SHouseh King Saud bin Abdulaziz University for Health Sciences, Saudi Arabia

Several studies have been conducted on CHD in different regions of Saudi Arabia. However, no recent systematic review has examined the growing scientific evidence with respect to the epidemiology of CHD in the Kingdom. The aim of this review is to provide a comprehensive summary of CHD incidence, prevalence, burden and impact on the Saudi population. A literature search was conducted in PubMed and Google Scholar using relevant keywords to identify studies performed in Saudi Arabia regarding CHD from 1993 up to December 2013. Articles that were in English that described or investigated the epidemiology, etiology, distribution, impact and burden of CHD in the Saudi Arabian population were included. 21 articles met these criteria. Cross-sectional studies found the prevalence of CHD ranging between 2.1 to 10.7 per 1,000 persons. The most prevalent type of CHD was the ventricular septal defect ranging from 29.5% to 39.5% of all diagnosed CHDs, followed by atrial septal defect (8.9% to 18.1%) and pulmonary stenosis (6% to 12.4%). Overall, the incidence of severe CHD was approximately 5.4 per 1,000 live births per year. Occurrence of CHD in Saudi Arabia was significantly associated with Down 's syndrome, consanguinity and maternal diabetes. Studies on the burden of these anomalies on children, families and society are scarce. This systematic review found that prevalence of CHD is comparable to that in other developing countries. Several modifiable risk factors have been identified emphasizing the importance of public health programs that are aimed at tackling such potentially preventable risk determinants.

Biography

Ashraf A El-Metwally is a medical doctor with a PhD in Epidemiology and Biostatistics (University of Tampere, Finland). He joined the College of Public health and Health Informatics in August 201, while holding an honorary lecturer position at the department of Public Health- University of Aberdeen in the UK. His research interests are in the epidemiology of pain, musculoskeletal disorders and rheumatic diseases, with 15 published research papers and reports in international peer-reviewed journals. His international awards include the Young Investigator Award from the British Society of Rheumatology (2006), First Prize for The Best Submitted Paper and Presentation from the British Pain Society (2007).

elmetwally.ashraf@outlook.com

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