

Epidemiology of Congenital Heart Disease in the Kingdom of Bahrain

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Background: Congenital heart diseases (CHDs) are the most common congenital anomaly in the newborn population with significant childhood morbidity and mortality. There is no published data for the patterns of CHD available in Bahrain.

Objective: To evaluate the incidence and trends of CHD and its subtypes over 17 years.

Design: A Retrospective Observational Study.

Setting: Pediatric Cardiology Department, Mohammad Bin Khalifa Bin Salman Al Khalifa Cardiac Center (MKCC), Bahrain.

Method: The study was performed from January 2000 to December 2016. Two thousand one hundred eighty-nine cases of CHDs were reviewed. All cases of CHD were confirmed by echocardiography and/or cardiac catheterization.

Result: Two thousand one hundred eighty-nine cases of CHD were diagnosed over 17 years with a cumulative incidence of 7.54/1000 live births; 1774 (81%) were acyanotic and 415 (18.9%) were cyanotic heart diseases. There was an increase in the incidence of CHD during the study period. Five hundred forty-five (24.9%) patients were ventricular septal defect (VSD), and 171 (7.8%) were Tetralogy of Fallot (TOF). The incidence rates of VSD, transposition of the great arteries, pulmonary atresia, Ebstein anomaly, and truncus arteriosus were lower than previously published studies. TOF and aortic stenosis were higher than in previous studies.

Conclusion: There is an increase in the incidence of CHDs. As the incidence and patterns differ from other studies, follow-up studies of this population in the future are indicated. There is a need to evaluate the population group and develop health policies.