

Epidemiological study of congenital heart diseases in children referred to the clinic or hospitalized in Boali Ardabil hospital from 2016 to 2021

Abstract

Background: Congenital heart disease is a type of birth defect that affects about 1% of babies born each year. Among all birth defects, this anomaly is the leading cause of death in infancy that is diagnosed at birth or later in life.

Aim: Due to the high importance of the issue of congenital heart diseases due to their high prevalence and high mortality and morbidity, and on the other hand, the dependence of the occurrence of these diseases on genetic patterns and environmental factors, a correct understanding of their prevalence in different societies can be used in drawing up screening and management plans. It is very important to reduce the mortality and morbidity of these diseases. Based on the mentioned cases and on the other hand, the lack of previous studies at the province level, we decided to design and implement a cross-sectional study with the aim of epidemiological investigation of congenital heart diseases in children referred to the clinic or admitted to Bo Ali Hospital in Ardabil from 2016 to 2021.

Materials and Methods: In this cross-sectional analytical study, all children admitted to Bo Ali Hospital in Ardabil with primary diagnosis of congenital heart disease or secondary diagnosis during hospitalization along with all children referred to the clinic of this hospital with diagnosis of congenital heart disease were included in the study.

Results: A total of 449 children with congenital heart disease were included in the study. 235 cases (52.33%) were boys, 35 cases (7.79%) had diabetic mothers and 12 cases (2.6%) had obese mothers. 20 cases (4.4%) were the result of multiple pregnancy and 31 cases (6.9%) were preterm. Significantly, preterm birth was more in children with cyanotic disease ($P=0.036$) and multiple births and maternal diabetes and aneuploidy were more in children with cyanotic

disease compared to Asianotic children (P-Value equal to 0.008 respectively and 0.001 and 0.001)

Conclusion: The frequency of congenital heart diseases, gender composition and related risk factors such as preterm birth and maternal diabetes were aligned and similar to domestic and foreign studies. Maternal diabetes and preterm birth can be considered as risk factors for congenital heart diseases.

Key words: congenital heart disease, newborns, prevalence, diabetes, preterm