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ORIGINAL ARTICLE

Analysis of Congenital Heart Defect in Pakistan

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ABSTRACT

Background and objectives: While the defect has been studied extensively in Pakistan, there have been just a few of research focusing on KPK populations. Because of this, the goal of this study was to identify neonatal congenital heart disease in Pakistani children.

Methodology: This cross sectional study was conducted in Sheikh Zayed Medical College during June 2021 to November 2021. Echocardiography was used to diagnose congenital heart disease in 1683 neonates who reported to the outpatient department (OPD) with a variety of ailments.

Results: Out of 1683 babies, a total of 303 (or 18%) had a congenital heart condition. It was found that 62.5 per cent of people infected with the virus were men, while 37.5% of them were women. 78 per cent of the cases included infants between the ages of one and three months. Patients described a variety of symptoms they were experiencing. Asthma, pneumonia, and cyanosis were the most prevalent causes of death (4 per cent). The great majority of patients had the cyanotic congenital cardiac disease (98 per cent). (77.9 per cent), followed by PDA (11.5 per cent), ASD (7.9 per cent), TOF (0.9 percent), and aortic stenosis (0.9 per cent) were the most common congenital heart defects observed in the study. (Aortic stenosis was the least common disease) (2.2 per cent).

Conclusion: To detect cardiac murmurs in our newborn population, the doctors in our paediatric outpatient clinics must increase their performance. This may result in a significant decrease in sales.

INTRODUCTION

Congenital heart disease refers to a cardiac condition that is present from birth (CHD). An abnormality in the cardiac muscle structure or function is the defining feature of this condition. This condition affects a sizable section of Pakistan's population. Globally, it affects around 10 out of every 1000 live births.[1,2] There isn't much research in Pakistan looking at the prevalence of HIV/AIDS, especially in the KPK region. Newborns in Pakistan don't have their heartbeats monitored regularly. The prevalence of coronary heart disease (CHD) in Pakistan is particularly difficult to estimate because of this. Traditional birth attendants, rather than doctors and hospitals, perform the bulk of deliveries in rural Pakistan, a scenario that is the polar opposite of what is happening elsewhere in the country.[3] As a result, we are unable to accurately estimate the prevalence of coronary heart disease in our area. This sickness can manifest itself in a variety of ways, ranging from no symptoms at all to severe cardiac dysfunction and death.[4] If caught early enough, the prognosis improves dramatically, and the number of deaths is reduced significantly.[5]This study was carried out on the population of Pakistan to find newborns with congenital heart defect.

Objectives: The main objective of the study is to analyse the prevalence of congenital heart defect in Pakistan.

MATERIALS AND METHODS

This cross sectional study was conducted in Sheikh Zayed Medical College during June 2021 to November 2021. As a hospital that treats a lot of children from the city and the surrounding rural areas, the OPD of Women and Children was found to have cases, according to the research. All babies who came to the outpatient department (OPD) with any complaints throughout one year would be checked for any abnormal murmurs. Echocardiography was performed in all cases where an abnormal heart sound was detected.

Statistical analysis: The data was collected and analysed using SPSS version 19. All the values were expressed in mean and standard deviation.

RESULTS

Congenital heart defect was identified in 303 of 1683 neonates who reported to the emergency room. Of the confirmed cases, 62% were male and 5% female. 78 per cent of the cases included infants between the ages of one and three months. The conditions that the patients brought to our attention are listed below. Respiratory sickness was the most frequent ailment, accounting for 48% of all cases, followed by underweight (31%), cyanosis, and weariness (4 per cent). According to this study, cyanotic congenital heart disease was responsible for 98 per cent of instances. The septum of the ventricle was shown to be the most often affected by the congenital cardiac defect. ASD (7.9%), TOF (0.9%), and aortic stenosis (0.1%) were the next most prevalent conditions, with PDA accounting for 11.6% of all cases (0.6 per cent).

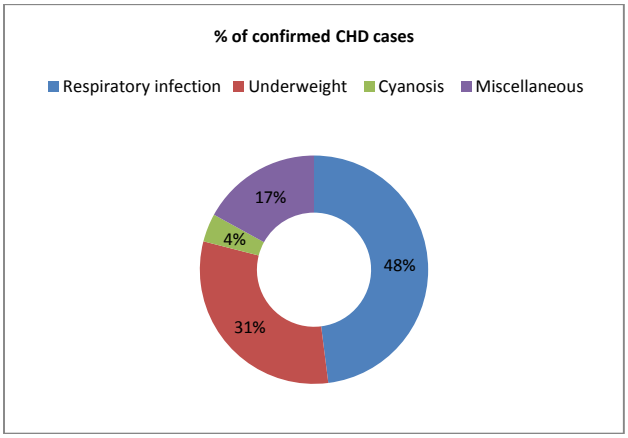

Table 1: Prevalence of CHD in selecting data

Chd	No. of cases
Vsd	236
Pda	35
Add	24
Teratology of fallot	6
Aortic stenosis	2

DISCUSSION

Advances in medical technology have made it feasible to diagnose coronary artery disease (CAD) in children early, resulting in a considerable drop in the CAD-related mortality rate. 3,4 The findings of our present analysis, however, show that CHD is often misdiagnosed. When a patient complained of respiratory disease, most of the cases were detected (48 per cent). Of the 303 cases, 62% of them were male, while just 37.2% were female. The male-to-female ratio is similar to that found in earlier studies in Pakistan[5]

In addition, we identified a much higher incidence of cyanotic heart disease compared to cyanotic heart disease in our research (98 per cent). A study found that VSD is the most common kind of congenital heart disease. Results from Rehan and Fraud were indistinguishable. Findings from other research throughout the world were similar to our findings, with 6,7 PDA being the second most common kind of CHD. The VSD was the most common CHD seen in cyanotic lesions. The second most common lesion was found to be PDA. Other studies have come to the same result [8, 9, 10]. TOF is the most common cyanotic lesion in previous studies, which is in line with this one[11]

CONCLUSION

Congenital heart defect has a far better prognosis now that it can be detected and treated earlier. The frequency of congenital heart disease in the Abbottabad district is higher than the national average. It's unfortunate that the irregularity isn't spotted until it's too late in development or when problems start to occur.

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