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Research Article

ANALYSIS OF PREVALENCE OF CONGENITAL HEART DEFECT AMONG LOCAL POPULATION OF PAKISTANDr Asma Saeed¹, Dr Nagina Nawaz², Dr Muhammad Yalmaz Masood³¹Lahore General hospital Lahore²Nishtar hospital, Multan³Jinnah Hospital, Lahore

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Abstract:

Introduction: Congenital heart disease (CHD) is a heart defect with an abnormality in structure or functioning of heart that is present at birth. This condition is very common in the population of Pakistan. **Objectives of the study:** The basic aim of the study is to analyze the prevalence of congenital heart defect among local population of Pakistan. **Materials and methods:** This cross sectional study was conducted in Lahore general hospital, Lahore during November 2018 to March 2019. The data was collected from 100 patients who visited the OPD of the hospital. The data was collected through non probability sampling technique. All infants visiting to the OPD due to any complaint would be examined for any abnormal murmur. Any abnormal heart sound case was referred for echocardiography for confirmation. **Results:** The data was collected 100 patients. Among the confirmed cases, 62.5 percent were males. 78 percent of the cases were between ages 1 to 3 months. The patients came with different presenting complaints as listed below. The presenting complaint was mostly respiratory infection 48 %, underweight 31 %, cyanosis (4%). It was found that the majority (98%) of cases were that of acyanotic congenital heart disease. **Conclusion:** It is concluded that early diagnosis and effective management has drastic improvement on prognosis of congenital heart disease. There is a considerably higher incidence of congenital heart disease in population of Lahore.

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INTRODUCTION:

Congenital heart disease (CHD) is a heart defect with an abnormality in structure or functioning of heart that is present at birth. This condition is very common in the population of Pakistan. Worldwide, its prevalence is about 10/1000 live births. Congenital heart disease (CHD) is the commonest birth defect worldwide, affecting millions of newborns every year. CHD is typically defined as a structural abnormality of the heart and/or great vessels that is present at birth [1]. Although approximately 20% of CHD incidence can be attributed to genetic syndromes, teratogen exposure or maternal diabetes, there remains substantial uncertainty regarding risk factors for the remaining 80% of cases [2]. In Pakistan very few studies have been reported regarding the prevalence, especially the population of KPK. Routine screening of heart of infants is not common in Pakistan. So it is very difficult to calculate exact prevalence of CHD in Pakistan. In rural Pakistan the situation is reverse, where most of deliveries take place in homes by traditional birth attendants. Therefore true prevalence of CHD in our population is unknown. Presentation of this condition can vary from asymptomatic accidental findings to severe cardiac decompensation and death. Early identification has great improvement on prognosis and can have a drastic reduction in mortality [3]. Congenital heart disease or congenital heart defect (CHD) is a problem of the heart's structure and function present at birth, affecting the heart or adjacent great blood vessels, detected either at the time of birth or detected later in life [4]. Worldwide, CHD are the main heart diseases found in children and constitute one of the major causes of infant mortality, particularly in developing countries. They also represent the most common of all congenital

malformations accounting for more than 20% of perinatal deaths [5].

Objectives of the study

The basic aim of the study is to analyze the prevalence of congenital heart defect among local population of Pakistan.

MATERIALS AND METHODS:

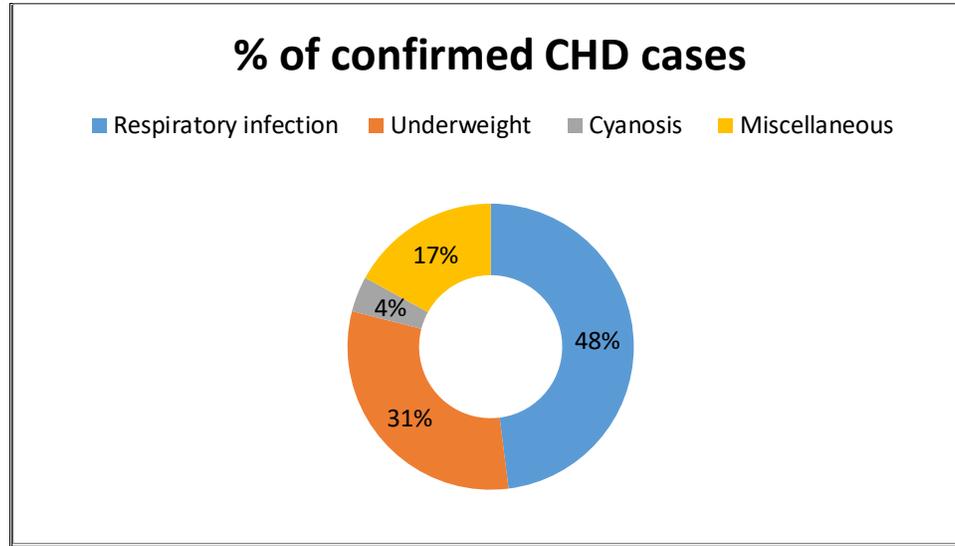
This cross sectional study was conducted in Lahore general hospital, Lahore during November 2018 to March 2019. The data was collected from 100 patients who visited the OPD of the hospital. The data was collected through non probability sampling technique. All infants visiting to the OPD due to any complaint would be examined for any abnormal murmur. Any abnormal heart sound case was referred for echocardiography for confirmation.

Statistical analysis

All the data were collected and analyzed using SPSS version 19.0.

RESULTS:

The data was collected 100 patients. Among the confirmed cases, 62.5 percent were males. 78 percent of the cases were between ages 1 to 3 months. The patients came with different presenting complaints as listed below. The presenting complaint was mostly respiratory infection 48 %, underweight 31 %, cyanosis (4%). It was found that the majority (98%) of cases were that of acyanotic congenital heart disease. Ventricular septal defect was the most common congenital heart disease detected. PDA (11.6%) was the second highest in frequency, followed by ASD (7.9%), TOF (0.9%) and aortic stenosis (0.6%).

**Table 01:** Analysis of confirmed cases of CHD

CHD	No. of cases
VSD	36
PDA	35
ASD	24
TETRALOGY OF FALLOT	6
AORTIC STENOSIS	2

DISCUSSION:

With improvement of technology in health sciences, early diagnosis of pediatric CHD has been possible, which has dramatically reduced the mortality rate of CHD. But, our present study indicates that CHD usually remains undiagnosed [6]. Most of the cases were identified during presenting complain of respiratory infection (48%) [7]. Out of 303 cases identified, 62.8% were males and 37.2% were females. The male predominance is similar to other studies done in Pakistan.

Our study also revealed higher frequency (98%) of cyanotic disease as compared to acyanotic heart diseases. VSD was found to be the most common type of CHD. Similar results were shown by Rehan and Faud. In our study, the second most common type of CHD was PDA, which was again similar to worldwide studies [8]. Among acyanotic lesions, VSD was the most common CHD found. PDA was found second most common lesion [9]. Similar result were shown by other studies. This is similar with other studies in which TOF was the most common cyanotic lesion [10].

CONCLUSION:

It is concluded that early diagnosis and effective management has drastic improvement on prognosis of congenital heart disease. There is a considerably

higher incidence of congenital heart disease in population of Lahore. Unfortunately, the defect is unidentified during the infancy or until complications develop. If detected, it can be managed in time.

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