



STUDY OF CLINICAL PROFILE OF CONGENITAL HEART DISEASE IN TEACHING HOSPITAL

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ABSTRACT

Congenital heart disease one of the leading cause of morbidity and mortality in pediatric age group. The reported incidence is 8 per 1000 births. The reported incidence is 8 per 1000 births .Objective is to study the pattern of clinical presentations in various Congenital heart diseases. This prospective study included children (birth to 12 yrs) with history and examination suggestive of congenital heart disease. Diagnosis confirmed by Echocardiography. Out of 82 cases, 78 cases were diagnosed Acyanotic and 4 were Cyanotic CHD. ASD (37.8%) remained the majority of cases. Female (54%) outnumbered male. Common clinical manifestations were Breathlessness (75%), Chest retractions (30%), failure to thrive (18%) , Cyanosis (4%) and Feeding difficulty (24%). Among the cases studied, 24% had history of recurrent lower respiratory tract infections. Murmur with or without thrill and cardiomegaly were the most important cardiac finding. Frequently observed complications were heart failure and growth failure. Conclusion: Early diagnosis, close monitoring and timely intervention goes a long way in reducing morbidity and mortality in CHD.

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INTRODUCTION

Congenital heart disease (CHD) defined as abnormality in Cardiovascular structure and function present since birth.¹ comprises one of the major diseases in pediatric age group and is the leading cause of death in children. The incidence Congenital Heart Disease is 8/1000 live births.²The incidence is still higher in still born (3-4%), spontaneous aborted (10-25%). Due to high birth rate, the burden of CHD in India is enormous. With advances in both palliative and corrective surgery, the number of children with congenital heart disease surviving adulthood has increased dramatically.³ Fetal echocardiography can make more accurate diagnosis of CHD even before birth. With currently available treatment modalities over 75 % of infants born with critical heart disease can survive beyond the first year of life and many can lead a normal life thereafter⁴ .The objective of this study are the clinical presentations in Various CHD.

Objective: The study aimed at understanding the clinical manifestations of various congenital heart diseases.

METHODOLOGY

Children presenting with features suggestive of congenital heart disease diagnosis confirmed by echocardiography were studied over a period from November 2014 to August 2016 admitted in Rajah Muthiah Medical College and hospital. During this study, 82 cases were included. After inclusion in each case a thorough history, detailed examination and investigations like ECG and chest X-ray were done. After this the diagnosis were confirmed by Echocardiography.

RESULTS

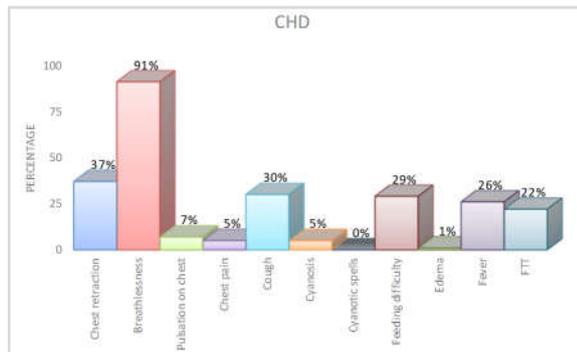
In this study the clinical presentations of various congenital heart diseases were taken into consideration and it was found that Breathlessness (75%) constituted the majority of cases followed by Chest retractions (30%), cough (25%), feeding difficulty (24%) and failure to thrive (18%).

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Table 1 Distribution of CHD by Modes of presentation

CHD Type	Common Symptoms (Percentage - %)										
	Chest retraction	Breathlessness	Pulsation on chest	Chest pain	Cough	Cyanosis	Cyanotic spells	Feeding difficulty	Edema	Fever	FTT
ASD+VSD	67	100	0	0	33	0	0	100	0	0	0
ASD+PDA	25	100	0	0	0	0	0	50	0	25	25
PDA+VSD	0	100	0	0	0	0	0	0	0	0	50
ASD	19	91	0	0	22	0	0	9	0	9	6
VSD	46	89	14	11	43	0	0	39	0	50	32
PDA	56	89	11	11	33	0	0	56	11	33	44
CCHD	75	100	25	0	50	100	0	0	0	0	25

**Fig 1** Clinical Presentations in CHD

Breathlessness and chest retractions were the first two ranks in symptoms in CHD. Breathlessness, Chest retractions and feeding difficulty were the first three symptoms ranks amongst ACHD. In case of CCHD, Cyanosis and breathlessness and chest retractions were the first three ranks symptoms.

DISCUSSIONS

Among the 82 cases studied revealed 95% constitutes ACHD and 5% CCHD. The modes of presentation of CHD seen in this study includes most frequently breathlessness (91%), followed by Chest retractions (37%), cough (30%), feeding difficulty (29%), fever (26%) and FTT (22%). When ACHD were analyzed alone, it was noted that breathlessness (91%), chest retractions (35%) and cough (29%) were the most frequent presenting complaints and in case of CCHD, cyanosis (100%) and breathlessness (100%) followed by chest retractions (75%) were noted.

Padedum *et al*⁵, noted in his study identified the most common presentation were chest retractions (57.4%) followed by cough (53.7%), breathlessness (35.1%), failure to thrive (25.9%), feeding difficulty (14.8%). In ACHD, it was noted that chest retractions is the most frequent presenting complaint in 59.1%, breathlessness, easy fatigability in 32.6%, followed by FTT 38% and in CCHD, it was observed that cyanosis was the most common presenting complaint in 100 % cases followed by feeding difficulty (80%), breathlessness (60%), failure to thrive (60%), chest retractions (40%) and cyanotic spell in 20 %cases.

Sandeep *et al*⁶ in his study conducted at a tertiary care hospital observed the commonest symptom in CHD as breathlessness (78%) followed by LRTI(60%), FTT(40%), cyanosis (26%) and fever(24%).LRTI noted commonly seen in VSD.

Similar results were also observed by Dipendra *et al*⁷ where, breathlessness was the most common presenting symptom reported in 69.2% followed by fatigue (62.6%), fever (59.3%) , cough (54.9%), failure to thrive (42.8%), recurrent LRTI (35.1%), CCF (27.4%), cyanosis(26.3%), refusal of feeds(17.5%), cyanosis(9.8%) and clubbing (15.3%). Similar results were observed by Shamima Sharmin *et al*⁸. Recurrent LRTI was the most common in acyanotic CHD. Cyanosis was the presenting symptom in cyanotic CHD

FTT is a major symptom of CHD, the reason being inadequate food intake and feeding difficulty.

CONCLUSION

Breathlessness, chest retractions, FTT, feeding difficulty, cyanosis were the common clinical presentations in congenital heart disease. CHD should be suspected in all cases of recurrent chest infections and failure to thrive. A high index of suspicion, a detailed history, physical examination, chest x-ray, electrocardiogram along with Echocardiography helps us to diagnose most of the congenital heart disease. With limited resources, clinical acumen forms the backbone for diagnosis for CHD. Early detection and intervention reduces the morbidity and mortality of CHD.

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