

A study on the prevalence of dilated cardiomyopathy in chronic alcoholics

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Abstract

Background: Dilated cardiomyopathy (DCM) is an important cause of congestive heart failure and accounts for up to 25% of all cases of CHF. The incidence of DCM appears to be increasing and is associated with significant morbidity and mortality. **Objective:** To study the prevalence of dilated cardiomyopathy in chronic alcoholics. **Methods:** A total of 50 patients who were admitted to Vinayaka mission's medical college and hospital and fulfilled the inclusion/ exclusion criteria were evaluated by history, physical examination, ECG and echocardiography. **Conclusion:** In this study it was observed that 20% of the patients who consumed alcohol regularly for a period of more than 20 years were found to have cardiomyopathy. **Results:** Majority of the patients were in the age group between 50 to 60 years (around 40%) with predominant conduction disturbances seen almost in all the cases included in the study (irrespective of age group) with 80% of them showing valvular regurgitation and heart failure. **Key Words:** cardiomyopathy, chronic alcoholics.

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MATERIAL AND METHODS

Total number of cases studied: fifty cases

Case Selection:

1. Patients for this study were selected at random in general medical wards and op in Vinayaka mission's medical college and hospital
2. Only patients who satisfy the working definition are included
3. Patients with the following conditions are omitted.
 - Patients with ischemic heart disease, ECG changes suggestive of ischemic heart disease.
 - Patients with the following medical problems
4. Systemic hypertension
5. Diabetes mellitus
6. Bronchial asthma
7. Renal disease

INTRODUCTION

Cardiomyopathy is a primary disorder of the heart muscle that causes abnormal myocardial performance. The dominant feature is a direct involvement of the heart muscle itself. They are distinctive because they are not the result of pericardial, valvular, hypertensive or congenital disease. The prevalence of heart failure is about 1 to 1.5% of the adult population. The mortality and morbidity remain high (median survival of 1.7 years for men and 3.2 years of women). Dilated cardiomyopathy is an important cause of heart failure and accounts for up to 25% of all cases of CHF.

Case Definition

1. All patients should satisfy the working definition of chronic alcoholism
2. Cases should have evidence of dilated cardiomyopathy like:

X ray chest-PA view, Electrocardiography, Various arrhythmias, Echocardiogram/doppler studies, Hemodynamic studies, Angiographic studies, Radionuclide studies, Transvenous endomyocardial biopsy

RESULTS AND OBSERVATIONS

Table 1: Based on clinical signs

Clinical Signs	Number Of Patients	Percentage
Apical Impulse (Down And Outward Shift)	10	20
Auscultatory Signs Of Mr/Tr S3/S4 Gallop	8	16
Hepatomegaly	0	0
A) Tender	A) 4	A)8
B) Non-Tender	B)5	B)10
Basal Rales	8	16

Table 2: Based on echo and doppler

Findings	Number Of Patients	Percentage
Enlargement of all 4 chambers	3	6
Increased end systolic volume	6	12
Ejection fraction<50	10	20
Mitral and tricuspid regurgitation	8	16

Table 3: Based on age group prevalence of cardiomyopathy

Age	Number Of Cases	Number Of Cases With Cardiomyopathy	Percentage
30-40	17	2	11
40-50	16	2	12
50-60	10	4	40
60-70	7	2	28

DISCUSSION

In this study of fifty cases of chronic alcoholism, it was observed that there were ten cases of dilated

cardiomyopathy. through there are numerous other causes of dilated cardiomyopathy, certain factors are against those (obviously peripartum dilated cardiomyopathy would not interfere in this study because only males are taken into account). Patient with ischemic heart disease are not included in this study. Patients on long term drug therapy (any drug) and toxin exposure are not taken, so the problem of drug factor is also ruled out. Glycogen storage diseases are unlikely in this study as they are seen almost exclusively in paediatric age group whereas in this study all the patients are above thirty. This prevalence rate is high when compared to the prevalence of dilated cardiomyopathy in normal population. this significant correlation was observed due to selection of cases that were chronic alcoholics and had symptoms relevant to cardiovascular system

RESULT

This observation noted in this study are. Dilated cardiomyopathy is the most common type of cardiomyopathy and an important cause of congestive heart failure. Dilated cardiomyopathy is common in the elderly and middle aged population. Out of 50 chronic alcoholics studied 10 patients were found to have dilated cardiomyopathy. out of these 10 patients of dilated cardiomyopathy, 8 patients were found to have cardiac failure, which amounts 80% atrio ventricular valvular regurgitation in 8 patients out of 10 patients, which is 80%. Conduction disturbances were also noted predominantly in most of the cases

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