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Research Article

AN ASSESSMENT OF THE CORONARY HEART DISEASES AND ITS ASSOCIATION WITH RELATED RISK FACTORS WITH RESPECT TO GENDER AND SMOKING

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Abstract:

Background: The most usual kind of heart disorder that leads to early death is coronary heart disease (CHD).

Objective: The objective of this study was to assess the factors associated with coronary heart disease (CHD) in patients presented at the hospital.

Patients and Methods: This research was completed from August to November 2018 at Mayo Hospital, Lahore. Those patients were selected who were found with an acute coronary heart disorder. The interview was taken from all patients to check the incidence of factors associated with CHD. Gender, Anxiety, depression, positive family history, smoking, obesity, diabetes mellitus, hypertension and dyslipidemia were the factors that were examined. Cardiologist made the identification. A Performa was designed for the assemblage of information. SPSS was used for data assessment.

Results: Among the total selected patients, the number of male and female was 70% and 30% respectively. The patients observed with anxiety and depression were 15%. Half of the patients (49.50%) were addicted to smoking. The patients found with hypertension, positive family history, diabetes mellitus, obesity and dyslipidemia were 45%, 32%, 29.5%, 26% and 23% respectively.

Conclusion: The results showed that the most frequent factor after male gender that is associated with CHD is a smoking habit. It is followed by hypertension, positive history, diabetes mellitus, obesity, dyslipidemia, anxiety and depression. The significance of adjustable risk factors is also discussed in this study that may help in the prevention of CHD.

Keywords: Risk Factors, Hypertension, Positive History, Obesity, Diabetes Mellitus, Dyslipidemia, Depression, Anxiety and Coronary Heart Disease.

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INTRODUCTION:

The most usual kind of heart disorder that leads to early death in the Baltic States, North and South America, New Zealand, Europe, Russia and Australia is CHD. One man in three and one female in four are subjected to death due to CHD in the United Kingdom. According to an estimate, about 1.3 million people have Angina and Myocardial infarct in 33,000 people [1]. All over the globe, it is considered that in 2020, CHD will be the leading cause of death. It was considered that CHD is more apparent in third world countries. But now, it is equally prevailed in developing nations especially in South Asia [2]. In South Asia, the incidence of CHD has not been discussed by traditional risk factors. It shows that other unknown factors are also responsible for CHD [3]. Blockage of the coronary arteries by atheromatous plaque is a common reason of coronary heart disease [4]. CHD is related to the atherosclerotic disorder. Many factors are responsible for it. There are various factors that put a risk of CHD. Serum cholesterol, diabetes mellitus, hypertension and smoking habits are some factors that are reversible. However, the factors that are irreversible are age, gender, family history and race [5]. The results of the historical Framingham study are confirmed by many studies worldwide. In a study was Framingham Heart since 1960, he observed that risk factors for CHD are hypercholesterolemia, hypertension and smoking [6, 7]. Morbidity and mortality are significantly caused by the incidence of adjustable risk factors for CHD like tobacco use, less physical activity and unsuitable diet [8]. It is not reported yet that death rate due to CHD can be significantly reduced if the risk factors associated with CHD [9]. If the precautionary measures are not taken immediately, the space between the requirement of

CHD prevention, management and capacity to meet them, will increase [10]. Decrease in the chances of first or regular clinical events due to CHD, peripheral artery disorder and Ischemic strokes is the aim of prevention [11]. Prevention and control of SVD as a part of a lengthy and assimilated non-communicable disorder prevention effort are mentioned in the National Action Plan for non-communicable disease prevention [12]. The objective of this research was to assess the factors associated with coronary heart disease among patients.

PATIENTS AND METHODS:

This research was completed from August to November 2018 at Mayo Hospital, Lahore. Those patients were selected who were found with an acute coronary heart disorder. The interview was taken from all patients to check the incidence of factors associated with CHD. Gender, Anxiety, depression, positive family history, smoking, obesity, diabetes mellitus, hypertension and dyslipidemia were the factors that were examined. Cardiologist made the identification. A Performa was designed for the assemblage of information. SPSS was used for data assessment.

RESULTS:

Among the total selected patients, the number of male and female was 70% and 30% respectively. The patients observed with anxiety and depression were 15%. Half of the patients (49.50%) were addicted to smoking. The patients found with hypertension, positive family history, diabetes mellitus, obesity and dyslipidemia were 90 (45%), 64 (32%), 59 (29.5%), 52 (26%) and 46 (23%) respectively.

Table – I: Stratification of Risk Factors

Risk Factor	Number	Percentage
Smoking	99	49.5
Hypertension	90	45.0
Positive Family History	64	32.0
Diabetes Mellitus	59	29.5
Obesity	52	26.0
Dyslipidemia	46	23.0
Anxiety and Depression	30	15.0

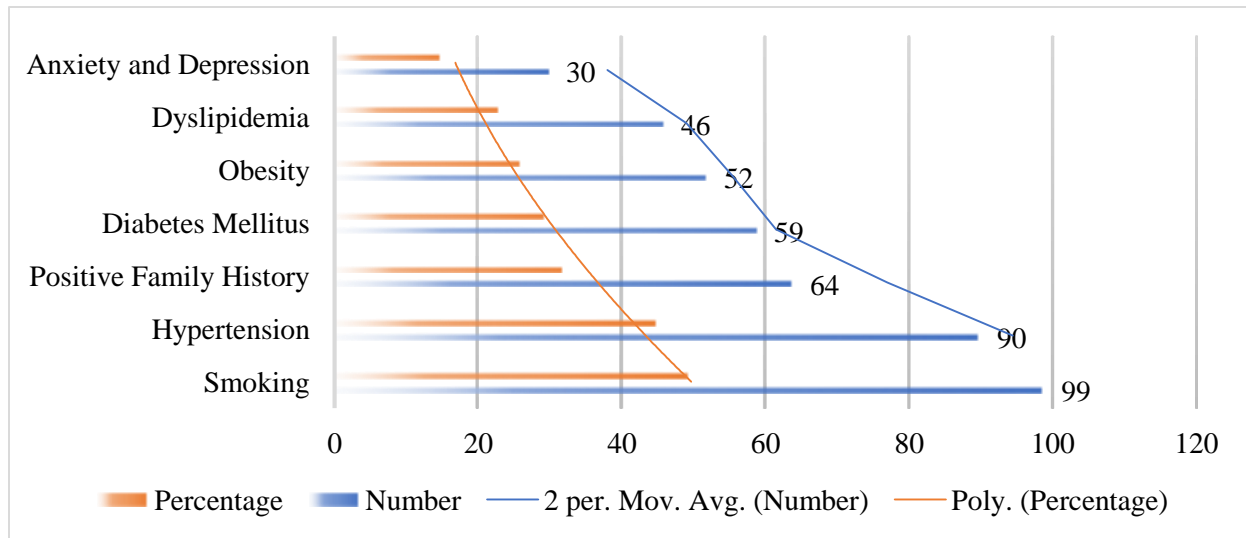
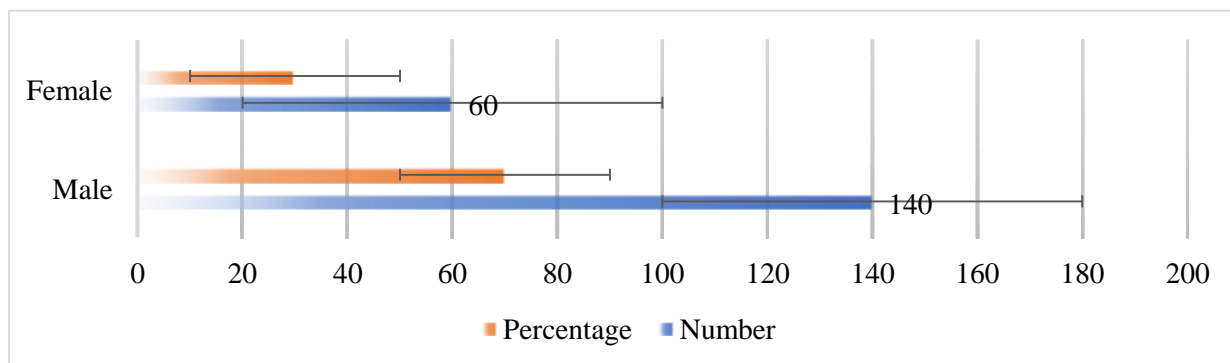


Table – II: Gender Distribution

Gender	Number	Percentage
Male	140	70.0
Female	60	30.0



DISCUSSION:

It is reported that some factors associated with CHD are reversible with CHD while others are irreversible. The factors that are irreversible are age, gender, family history and race. While diabetes mellitus, hypertension, obesity, reduced physical activity and smoking are reversible factors. Diabetes mellitus, Lipid irregularities and hypertension are some factors that can be adjusted by variation in lifestyle and pharmacotherapy [13]. It was also reported that males are more vulnerable to CHD than females as male to female ratio is (70:30). Similar results are indicated by various local studies as well [14 – 16]. Smoking (49.5%) after male gender was the most frequently found a factor. Similar outcomes are indicated by

studies from Lahore, Islamabad and Faisalabad [14 – 16]. Similar to other studies, the other risk factors for CHD in this area were Hypertension and dyslipidemia as reported in our study [17, 18]. The patients with positive family history, diabetic obesity, anxiety and depression were 32%, 30%, 26%, 15% and 15% respectively. Other studies also showed the same results [18].

CHD is found in a large number of people. A masterplan should be made based on the whole population. For avoiding CHD, the main preventive measure is a modification of diet. Many patients in our study have risk factors based on diet. This includes 23% of patients with dyslipidemia, 29% with diabetes mellitus and 26% having obesity. Steps should be

taken to reduce the element of smoking from society. Many nations are trying to eliminate smoking. A lengthy health program related to educational activities, fiscal measures, legislative limitations and effective knowledge would be needed. Half of the participants of our study is found with the smoking habit. Less salt should be consumed and weight should be controlled. High alcohol intake should be avoided. 45% of patients are found with hypertension in our study. 26% of the patients in our study were overweight. Primary prevention should be followed by secondary prevention. To avoid the regularity and advancement of CHD is the goal of secondary prevention. It is advancing very quickly. Various research in the field of coronary surgery, the use of pacemakers and drug trials is on the way [19].

CONCLUSION:

It is showed that males are more vulnerable to CHD and after male gender, smoking is the second most contributing factor. It is followed by hypertension, positive family history, diabetes mellitus, obesity, dyslipidemia, anxious and depression.

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