ORIGINAL ARTICLE

Prevalence of Depression in Patients of Acute Coronary Syndrome

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ABSTRACT

Aim: To determine the frequency of depression in patients of acute coronary syndrome.
Study design: Prospective study
Place and duration: Department of Cardiology, Bahawal Victoria Hospital, Bahawalpur, from January 2015 to June 2015
Methodology: One hundred and eighty patients admitted with the diagnosis of acute coronary syndrome were enrolled in the study. The enrolled patients were screened with Patient Health Questionnaire (PHQ 9) for the presence and severity of depression. Patients who had PHQ 9 score ≥ 10 were labeled to have depression. The data was entered and analyzed with SPSS version 17.
Results: Mean age of the population was 54±14 years. Out of 180 patients, 122(67.8%) were males. The prevalence of depression in acute coronary syndrome was 19.4%. Depression was more common in females. The prevalence of depression in STEMI, NSTEMI and UA were 19.8%, 19.1 %, and 19.2% respectively.
Conclusion: A considerable number of patients admitted with acute coronary syndrome have co-morbid depression. Screening should be done to find depression in this population for earlier intervention.
Keywords: Acute coronary syndrome, Depression

INTRODUCTION

Depression has been recognized as an independent risk factor for the occurrence of coronary artery disease for decades.[1] The proposed mechanism for this observation is the increased platelet activity in depressed patients.[2] Depression is a common co-morbidity in patients of coronary artery disease. It is almost 3 times more prevalent in sufferers of acute myocardial infarction (MI) than in general population.[3,4] The prevalence of major depressive disorder in patients of coronary artery disease has been reported in the range of 15 % to 23 %.[5] Depression has also been linked to a variety of conventional cardiovascular risk factors including diabetes mellitus, smoking, hypertension, and physical inactivity.[6] Moreover depression in patients of acute coronary syndrome is associated with excess morbidity and mortality in this patient population.[7] We designed a study to determine the frequency of depression in patients of acute coronary syndrome in our population.

METHODOLOGY

This prospective study was conducted in the department of Cardiology, Bahawal Victoria Hospital, Bahawalpur, from January 2015 to June 2015. One hundred and eighty patients admitted to the Cardiology Department with the diagnosis of acute coronary syndrome were enrolled in the study. Acute coronary syndrome comprised of ST-elevation MI (STEMI), non-ST-elevation MI (NSTEMI), and unstable angina (UA). STEMI was defined as chest pain with ST-segment elevation ≥ 2 mm in precordial leads V_2 and V_3, or ≥ 1 mm in all other leads except aVR in at least two leads of a contiguous lead group. NSTEMI was defined as chest pain and ST-segment depression ≥ 1 mm or T wave inversion with elevated troponin I or T levels. UA has similar features as those of NSTEMI but with normal troponin levels. Patients with cognitive impairment or diagnosed renal or hepatic impairment were excluded from the study. The enrolled patients were screened with Patient Health Questionnaire (PHQ 9) for the presence and severity of depression. Patients who had PHQ 9 score ≥ 10 were labeled to have depression. The data was entered and analyzed with SPSS version 17. Age of the study sample was presented as mean and standard deviation. Categorical variables like gender and the presence or absence of depression were presented as frequency distribution tables.

RESULTS

A total of 180 patients were included in the study. Mean age of the population was 54±14 years. Out of

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180 patients, 122(67.8%) were males. The study population comprised of 86 patients of STEMI, 68 patients with NSTEMI, and 26 patients with UA (Table 1). The prevalence of depression in acute coronary syndrome was 19.4% (Table 2). Depression was more common in females (22.4%) as compared to males (18%) (Table 3). The prevalence of depression in STEMI, NSTEMI and UA were 19.8%, 19.1%, and 19.2% respectively (Table 4).

Table 1: Characteristics of the study population

Characteristics	Frequency	%age
Mean age (years)	54±14	-
Males	122	67.8
Females	58	32.2
STEMI	86	47.8
NSTEMI	68	37.8
UA	26	14.4

Table 2: Prevalence of Depression in Acute Coronary Syndrome

Depression	Frequency	%age
Present	35	19.4
Absent	145	80.6

Table 3: Depression and the impact of Gender

Gender	Frequency	%age
Male	22	18
Female	13	22.4

Table 4: Depression and the impact of type of ACS

	Frequency of depression	%age
STEMI	17	19.8
NSTEMI	13	19.1
UA	05	19.2

DISCUSSION

Depression in coronary artery disease patients has been linked with poorer quality of life after MI,[8] longer hospital stays and increased rates of readmission after MI[9], faster disease progression (e.g., atherosclerosis in CABG patients)[10] and increased use of urgent care[11,12]. Our study found that the prevalence of depression in patients admitted for acute coronary syndrome is 19.4%. Previously Abdul-Mohsen[2] has reported that the frequency of clinically significant depression in acute coronary syndrome is 20.4%. Our results are consistent with the previously reported frequency.

CONCLUSION

A considerable number of patients admitted with acute coronary syndrome have comorbid depression. Screening should be done to find depression in this population for earlier intervention.

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