
Research Article



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Investigation of depression status in CAD patients

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ABSTRACT

Objective: The aim of the study was to investigate the depression status in the CAD patients who under the beta blockers and HCN blocker therapy. **Method:** Prospective observational study for duration of 6 months was carried out. **Results:** Patients treated with beta blocker therapy were less likely to experience depression compared to other groups. **Conclusion:** Depression is highly prevalent among patients with CAD. Patients treated with beta blocker therapy were less likely to experience depressive symptoms.

Keywords: Beta blockers, Depression, CAD.

Introduction

Depression is a common mental disorder that present with loss of interest or pleasure, feeling of guilt or low self-worth. At its worst, depression leads to suicide the burden of depression is the 50% higher for females than in males. Depression is highly prevalent among patients with coronary artery disease at approximately three times greater than the general population. Depressions behave as a risk factor for the development of CAD. Recently it was found depression and emotional distress has been identified as a risk factor for Coronary Artery

Disease (CAD). Depressions with the development of CAD and with a worse outcome in patient with established CAD are linked with several factors. (Health care costs, hospitalizations, worsening of heart failure symptoms and death are associated with depressive symptoms. It has been known that depressions in CAD are linked with functional decline, physical and social limitations and diminished quality of life. ^[1-6]

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PHQ 9 questionnaire

Screening for depression refers to the use of depression screening questionnaire to identify patients who may have depression but not diagnosed. Patient Health Questionnaire-9 has designed to screen for depression in primary care and other medical sectors. When screening programs are recommended physicians are advised to administer depression symptoms questionnaire and to use pre identified cut –off threshold to classify patients, having positive or negative screening outcomes. Those with positive screening outcomes can be evaluated to determine whether they have depression, if appropriate treatment should be given. Clinicians are encouraged to use mood questionnaires in a routine primary care in a range of health settings.

Materials and method

It's a prospective observational study. Total 18 patients having depression symptoms under beta blocker therapy were screened and 60 records were selected based on the following inclusion and exclusion criteria of the study. Consent was

obtained from each subject in patient before initiating the study. Structured pre-forma was used to collect the depression symptoms and it was also recorded.

Statistical Analysis

The statistical analysis was done using Microsoft excel. All the data were expressed in percentage. Collected data were entered in Microsoft excel spreadsheet for further interpretation.

Results

In beta blocker therapy 12 patients (48%) had mild depression, 6 patients (24%) had moderate depression and 7 patients (28%) had no depression. In Ivabradine therapy 6 patients (30%) had mild depression, 11 patients (55%) had moderate depression and 3 patients (15%) had no depression. In control group 15 patients (68%) had mild depression, 3 patients (14%) had moderate depression and 4 patients (18%) had no depression. Patients treated with beta blocker therapy were less likely to experience depression compared to other two groups.

Table No. 01: Number of Patients affected by depression

DEPRESSION	DRUG THERAPY		
	BETA BLOCKER	IVABRADINE	CONTROL
Mild	12	6	13
Moderate	6	11	6
None	7	3	3

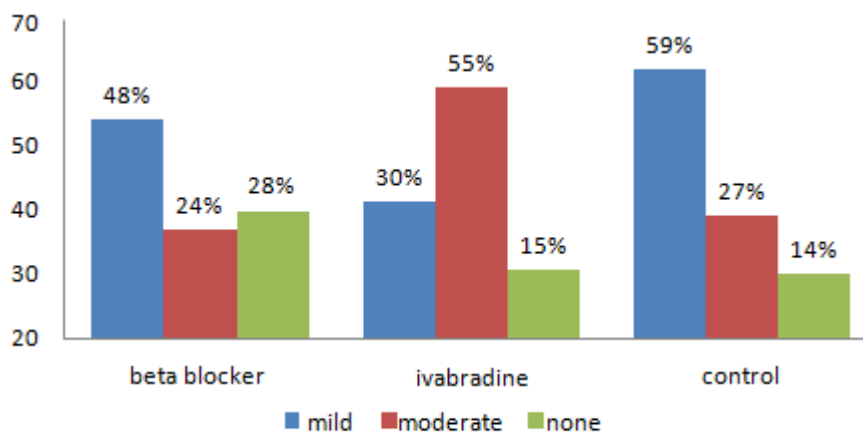


Figure No. 01: Number of Patients affected by depression

Discussion

CAD is the narrowing of the blood vessel as a result of atherosclerosis that supply blood and oxygen to the heart that can lead to unstable angina, Myocardial infarction, & heart failure. CAD is the leading cause of mortality worldwide, a serious economic burden on healthcare system.

Depression is highly prevalent among patients with coronary artery disease at approximately three times greater than the general population. Depression behave as a risk factor for the development of CAD .in this study among the 90 individuals, 47 patients (52.2%) had mild depression, 24 patients (26.6%) had moderate depression, 2 patients (2.2%) had moderately severe depression & 17 patients were without depression, 81% of patients have depression as mention in Table and Figure no:1. This study is similar to the

study conducted by Linda C. Battes (2012) suggesting the association between beta blocker dose and responsive symptoms in PCI patients and the extent to which there is a dose responsive relationship between beta blocker dose and depressive symptoms.

Patients treated with beta blockers therapy were less likely to experience depressive symptoms 12 month post PCI. There exists a dose response relationship with higher dose providing more pronounced protective effect.

Conclusion

Depression is highly prevalent among patients with CAD. Patients treated with beta blocker therapy were less likely to experience depressive symptoms.

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