Prevalence of Anxiety and Depression among patients of Cardiovascular diseases

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ABSTRACT

Aim: To illustrate frequency and associations of anxiety and depression in cardiovascular patients.
Methods: In this longitudinal cohort study six hundred thirty patients (mean age 53±6 years, 63% females), 32% have already undergo with cardiac surgical intervention. Most of the patients are suffering from hypertension, myocardial infarction, heart failure and atherosclerosis. Questionnaires were included Anxiety, Depression and different stress variables (DASS-21) & perceived stress
Results: Prevalence of high anxiety and depression symptoms ranged from as low as 19.7% (95% confidence interval) to as high as 53.2% (95% confidence interval). After evaluation and calculating all the variables different levels of anxiety and depression were noted. More depression and anxiety were noted in patients with long standing cardiovascular diseases.
Conclusion: Among cardiovascular diseases patients, depression and anxiety wide ranging in long standing disease patients with increasing risk of involving with other diseases. Patients were less response towards antidepressant treatment due to lack of acceptance with depression and anxiety. Increased prevalence of anxiety and depression among cardiovascular patients is more likely due to low willing to acceptance of diseases by patients and their family members.
Keywords: Cardiovascular diseases, Anxiety, Depression.

INTRODUCTION

Depression and anxiety can lead to decrease the quality of life and worsen the associated diseases especially cardiovascular diseases and may cause mortality. By past researches it is confirmed that most of the patients with cardiovascular disease were diagnosed at the age of early forties and fifties[1]. The depression and anxiety in cardiovascular disease patients have noteworthy impact on their effectiveness towards treatment and prognosis[2]. The defined ideas and problems faced by patients may exaggerated their symptoms and can affect patients activities of daily life and quality of life[3].

There was high incidence noted in patients with cardiovascular diseases in term of depression, On the other hand post – myocardial depression were increasing abruptly in young population[4]. Further more in acute cardiovascular diseases patients have assessed with high hospital anxiety score[5]. It had been revealed that depression and anxiety vigorously effect the patient health, respiratory and ambiguous symptoms had been noted, and over all activities of daily life. Depression is mostly occurs in patients of long running and chronic cardiovascular diseases[6].

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Emotional upsets mostly boost the pathophysiological factors and making the disease more complicated in terms of treatment and its control, especially in young adults anxiety and depression may progress to disturb the neuroendocrine and autonomic processes, which rapidly leads to cardiac rhythm irregularities[7]. As a protective mechanisms with the cardiovascular diseases positive psychology can avert and modify the risk of patients quality of life through enhancing abilities and positive attitude[8]. It is observe that plan to cope with anxiety and depression should be managed by steps. Those patients, who remain active and adapt healthy lifestyle with cardiovascular disease had less chances to capture by depression and anxiety[9].

METHODOLOGY

In this longitudinal cohort study six hundred thirty patients (mean age 53±6 years, 63% females), 32% have already undergo with cardiac surgical intervention. Data were collected randomly from Punjab institute of cardiology, Mayo Hospital and Jinnah Hospital Lahore. Cardiovascular diseases patients with depression or anxiety complain were also included. Then written consent were taken from patients. Before completing the questionnaires, patients were informed about all the important steps to complete it. Questionnaires were included Anxiety, Depression and different stress variables (DASS-21) & perceived stress (PSS-14).

Table 1: Psycho-Social Flow Chart
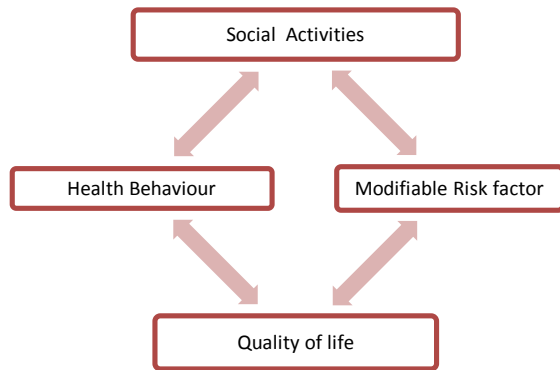
Depression ,Anxiety and stress scale (DASS-21) scale has three sub scales, used to evaluate the negative emotional states of depression, anxiety and stress. The reliability coefficient of the test was equal to 89%. Perceived stress scale (PSS-14) was used to measure the perceived stress during the last six weeks. Data were analyze by using SPSS 21. In reviewing the particulars, implications of relationships is probably based on level of significance. P- value is less than 0.005 ($p<0.05$), all the variables are significant. Most of the patients are suffering from hypertension, myocardial infarction, heart failure ad atherosclerosis. Filled out questionnaires after confirmation of cardiovascular diseases patients, including socio-demographics, health status and behaviors, family support, sense of rationality anxiety and depression. Clinico-functional and psychopathological assessment were performed.

RESULTS

This study was conceded out on basis of biological and psychological approach. The patient samples included 630 patients of cardiovascular diseases. Prevalence of high anxiety and depression symptoms ranged from as low as 19.7% (95% confidence interval) to as high as 53.2% (95% confidence interval). After evaluation and calculating all the variables different levels of anxiety and depression were noted.

The variables of depression, anxiety perceived stress with 0.67,0.79 and 0.58 values had the highest factor in prevalence of depression and anxiety in cardiovascular diseases patients. More depression and anxiety were noted in patients with long standing cardiovascular diseases. Intensity of psychopathological symptoms were decreased in patients with acute stage cardiovascular diseases and they shows rapid recovery with treatment. Family support and patient behavior were major factors to decrease the anxiety among longstanding cardiovascular disease. Many of the indirect variables on protective factors are also zero except the indirect effects of quality of life, including social and environmental dimensions.

Table: 2 Patients socio- demographic variables

Characteristics	%age	Frequency
Age (years)		
30-35	12.4	71
36-45	16.3	96
46-60	51.7	316
>60	31.2	147
Gender		
Male	37	202
Female	63	428
Marital status		
Single	26	150
Married	74	480
Education		
Literate primary	39	236
High school	53	328
Graduation or postgraduation	08	40

DISCUSSION

The findings and results of this longitudinal cohort study, after systematic analysis of all the data from 630 patients with cardiovascular diseases proves that the prevalence of depression and anxiety were increases many fold as disease prolonged. Patient quality of life and participation in social activities will play major role in prevention from depression and anxiety. Consequently, it is need of the hour to focus on risk factors and protective factors to decrease the prevalence of depression and anxiety in cardiovascular diseases patients[10].

Barth et al., performed a retrospective analysis in 2010 and concluded that deficiency in social support play a key role in delay the complete prognosis of cardiovascular diseases in depression patients[11]. In healthy people lack of social support play key role in advancing the psychological effects on patient health[12].

In this matter Kawachi et al., performed study that concluded that social support with different relationship had a main role in preventive factors for anxiety in cardiovascular diseases patients. The interpretation of variables were also in same pattern define quality of life and social support as key factors in prevalence of anxiety as diseases were prolonged[13]. If patients were psychologically counsel about their diseases complication and how they can change their lifestyle according to physical health then it is quiet beneficial for patient to avoid such mind illness factors with prolong diseases[14].

Nekouei ZK et al also performed a cross sectional study in 2014 on psychological risk and protective factors affecting quality of life with coronary heart disease. They concluded that there is many diverse psychological risk factors of coronary heart

diseases patients[15]. They emphasized the early recognition of psychological issues in the patients and focus on preventive programs at primary stages of diseases and at secondary level the prevention by rehabilitation centers to improve the overall quality of life in heart diseases patients[16].

Moreover, it is need of the modern society to take preventive measure to decrease the prevalence of depression and anxiety in such cardiac diseases patients[17]. Focus should be placed to counsel the patients and their family members that they should take steps to involve the patients in activities of daily life as well as in social activities. With all the proper precautions and being active patients can avoid development of depression and anxiety, which is becoming more harmful to decrease the prognosis of cardiovascular diseases[18].

CONCLUSION

Among cardiovascular diseases patients, depression and anxiety wide ranging in long standing disease patients with increasing risk of involving with other diseases. Patients were less response towards antidepressant treatment due to lack of acceptance with psychological diseases. Increased prevalence of anxiety and depression among cardiovascular patients is more likely due to low socio-economic status and low literacy rate of patients.

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