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Prevalence and Correlation of Depression in Patients Suffering from Type 2 diabetes Mellitus

Mohammed Osama Akhtar[*1], Syed Saud Ahmed[1], Zohair Jamil Gazzaz[2], Danyah Rizwanulla Sheriff[1]

[1]Department of Pharmacy Practice, Rajiv Gandhi University of Health Science, Bangalore - 560041, Karnataka, India
[2]Department of Internal Medicine, Faculty of Medicine, King AbdulAziz University (KAU), Rabigh, P.O.Box 80200, Jeddah – 21589, Saudi Arabia

ABSTRACT

Depression is one of the commonest psychiatric disorders and is a prominent reason for major health problems worldwide. The prevalence and the dysfunction, morbidity, suffering, and economic burden. Depression can lead to upsurge in the health-seeking performance, diminished excellence of life and increased propensity for desperate tendencies. In the majority of the cases, the affected patients report late and owing to various scales of assessing depression, patients with depressive disorder are often undertreated. As per the Global Burden of Disease report the prevalence of depression is 1.9% among men and 3.2% for women and the overall one-year prevalence increases to 5.8% in men and 9.5% in women. Given the existing epidemiological evolution and demographic, the impact of unhappiness can be tremendous by 2020 with the burden of depression at about 5.7% of all the illnesses. The morbidity bearing will be so huge that and it would be the most important reason for disability-adjusted life years (DALYs), next only to ischemic heart disease. This education expected at to assess the prevalence and correlates of depression among type 2 diabetes mellitus patients and impact of treatment on diabetic status, glycemic quality and control of life after 6 months. The scales used in this study was Mini international neuropsychiatric interview – 6.0 , Hamilton Depression Scale (HAM-D), WHO Quality Of Life (WHO-QOL) – BREF scales, Morisky 8-item Medication Adherence Questionnaire. The study has highlighted the prevalence of depression in the study population, positive impact of depression on the treatment compliance, glycemic control and quality of life of the affected patients.

*Corresponding Author

Name: Mohammed Osama Akhtar
Phone: +91 8197081869
Email: mohammedoakhtar@gmail.com

INTRODUCTION

In this section represents introduction of this research work. Diabetes mellitus (DM) is a major health disquiet in Asia with more than 110 million people are affected with DM, among whom more than 1.0 million people die yearly. A chronic disease like CVD, cancer, and DM in the South Asian population are found to be associated with unhealthy life style and related behaviors. [1–6]

The complications of DM are often serious and can be of short-term nature like hypoglycemia or

long-term ones namely, cardiac disease, vascular impairments, nephropathy, retinopathy, and neuropathy. [7, 8] However, there is very little evidence linking it to increased risk for depression. Additionally, evidence from some meta-analysis studies indicates that presence of dejection can even rise the risk of diabetes and cardiovascular disease (CVD), advocating that it may also be etiologically related to some of these chronic medical conditions. [9–12] Depression is a highly prevalent psychological problem between patients with type II diabetes mellitus (T2DM).with an estimated prevalence of25-44%.It results in severe diabetes-related outcomes globally. Across the globe, nearly one-third of people suffering from diabetes suffer from some form of the depressive disorder. [13–16]

The sector 2 of these articles illuminates the element on the linked works. In sector 3 it represents the materials and methods adopted and sector 4 represents the specifics of the discussions and experiments. Lastly segment 5 accomplishes the paper by distribution our implications and upcoming strategies.

RELATED WORKS

In this segment represents focuses the related works of this research work. Depression is one of the commonest psychiatric disorders and is a prominent reason for major health problems worldwide in expressions of its occurrence and the morbidity, sorrow, economic burden and dysfunction. [17–20] Depression can lead to increase in the health-seeking behavior, diminished excellence of life and increased propensity for desperate tendencies. In the majority of the cases, the affected patients report late and owing to various scales of assessing depression, patients with depressive disorder are often under treated. [21–24]

As per the Global Burden of Disease bang, the occurrence of dejection is 1.9% among men and 3.2% for women and the overall one-year prevalence increases to 5.8% in men and 9.5% in women. [25, 26] Given the existing epidemiological and demographic evolution, the impact of depression can be tremendous by 2020 with the burden of depression at about 5.7% of all the illnesses. The morbidity bearing will be so huge that and it would be the most important reason for disability-adjusted life years (DALYs), next only toischemic heart diseaseTable 1. [27, 28]

Investigations employing the Composite International Diagnostic Interview (CIDI) to recognize major depressive disorder (MDD) described 12.8% of 16.2% of overall prevalence in the developed world with a one-year prevalence of 3.9% to 6.6%. [29, 30] The occurrence of depression in various parts of Asia was comparatively less to that of the western counterparts. A nationwide investigation in Taiwan predicted that the lifespan occurrence of MDD was 1.2% while the 1-year prevalence was 0.6%.The demographic and health-related aspects exert a major influence on the burden of depression. [31, 32] They include age, females, lower economic status, low literacy level, separation or divorce, being unmarried, chronic ailments, and smoking. Additionally, influences like the perceived status of health and underlying stress may further increase the risk of depression.

Patients with persistent clinical contamination have a high prevalence of predominant depressive illness. Depressive signs may also co-arise with serious clinical illnesses, together with heart disease, stroke, most cancers, neurological disorder, HIV infection, and diabetes. [33].The purposeful impairment related with scientific ailments frequently causes melancholy as they are known to manifest severely making the daily living difficult, and exponential increasing the cost of medical care as compared to the individuals without depression. All these aspects emphasize the position of early diagnosis and appropriate behavior for depression. In doing so, there can be the better recovery of existing physical ailments leading to faster recovery and shortened hospital stay.

MATERIALS AND METHODS

In this segment represents the methods and materials of this research work. The study was a potential observational study, showed in the department of psychiatry and department of general medicine, on 100 patients with type 2 diabetes mellitus. The patients who content the criteria for depression based on ICD-10 were started on treatment as per the institutional protocol and were shadowed up regularly for a period of 6 months. During follow up, participants were assessed by Mini international neuropsychiatric interview – 6.0, Hamilton Depression Scale (HAM-D), WHO Quality Of Life (WHO-QOL) – BREF scales, Morisky 8-item Medication Adherence Questionnaire. At the end of 6 months-HbA1c, Fasting Blood Sugar, Postprandial blood sugar, and Rating scales were assessed.

RESULTS AND DISCUSSIONS

This phase focuses on the consequences and discussions of these studies work. A general of 100 topics has been protected inside the very last evaluation. The cruel age of the look at the population was

Table 1: Comparison of WHO QOL score before and after intervention in peoplewith Depression (N=28)

WHO QOL Domains	Base Line Score	6 Months Score	P-Value
Physical health	17.72±2.281	25.56±three.367	0.001
Psychological	16.32±2.174	22.64±2.343	0.001
Social relationship	9.61±2.07	16.32±2.08	0.181
Environment	29.28±3.85	29.38±3.86	0.167
Overall score	5.96±1.23	6.71±1.15	<0.001

52.61± 11 years.

Among them have a look at individuals, highest share (51%) of the topics, were age among 51 to 70 year, observed through 38% of the subject in 31 to 50-yr age institution. There had been 5% of topics beneath the age of 30 or more beneath, and 6% of the subjects had been age 70 years or exceeding. The share of women and men turned into 61% and 39% correspondingly in observe populace.

The mean satisfactory of lifestyle score has exposed enhancement from baseline in Physical fitness and Psychological domain names. This suggest Physical fitness was 17.72±2.281 at baseline, which has progressed to 25.56±3.367 at 6 months follow up. The mean Psychological rating was 16.32±2.174 at baseline and has advanced to 22.64±2.343 at 6 months comply with-up. Together the variations have been statistically huge suggesting that remedy stronger the excellent of life.(P price < 0.001). There become a statistically vast impotent in complete WHO QOL of life rating from 5.96±1.23 at baseline to 6.71±1.15 at 6 month (P price < zero.001).

There was a decline in the entire glycemic indices form baseline to 6 months in the study population. The mean FBS has declined from 158.32±50.89 at baseline to 135.84±44.42 at 6 months, which was statistically important (P value 0.047). The PPBS values have changed from 267.52±80.69 at baseline to 223.92±66.61, which was statistically important (P value 0.009). The HbA1c mean value has declined from 9.15±1.220 at baseline to 8.328±1.600 at 6 months, which was statistically noteworthy (P value 0.003).

Out of the total 28 subjects with depression at baseline 21 (75%) have become normal at 6 months follow up. The number of subjects who still had moderate and severe depression were 3 (10.7%) and 1 (3.57%). None of the subjects had very severe depression at follow up against 4 subjects with very severe depression at baseline. 3 subjects were lost to follow up.

There was a statistically significant impotent in over HAM D score from 5.96±1.23 at baseline to 4±1.47 at 6 months (P value < 0.001). Out of the total 14 subjects with low adherence at baseline, only 6 (42.9%) remained in low category. The proportion of subjects with improved adherence to medium and baseline , At 6months follow up, 5 persons (35.7%) maintained medium adherence , 4(40%) were improved to high adherence and 1(10%) person reduced adherence to low level. Out of the total 4 subjects with depression with high level of adherence, at 6 months follow up, 3(75%) subjects maintained the same adherence and 1 person (25%) reduced to medium level. Overall, The number of subjects who had medium and high level of adherence at 6 months follow up were 11 (39.3%) and 10 (35.7%) respectively.

CONCLUSION

Finally this work concludes that there was a decline in all the glycemic indices form baseline to 6 months in the study population. The mean FBS has declined from 158.32±50.89 at baseline to 135.84±44.42 at 6 months, which was statistically substantial (P value 0.047). The PPBS values have changed from 267.52±80.69 at baseline to 223.92±66.61, which was statistically substantial (P value 0.009). The HbA1c mean value has declined from 9.15±1.220 at baseline to 8.328±1.600 at 6 months, which was statistically substantial (P value 0.003) .Out of the entire 28 subjects with depression at baseline 21 (75%) have become normal at 6 months follow up. The number of subjects who still had moderate and severe depression were 3 (10.7%) and 1 (3.57%). None of the subjects had very severe depression at follow up against 4 subjects with very severe depression at baseline. Out of the total 14 subjects with low adherence at baseline, only 6 (42.9%) remained in low category. The proportion of subjects with improved adherence to medium and baseline , At 6months follow up, 5 persons (35.7%) maintained medium adherence , 4(40%) were improved to high adherence and 1(10%) person reduced adherence to low level. Out of the total 4 subjects with depression with high level of adherence, at 6 months follow

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Conflict of Interest

The authors declare that they have no conflict of interest for this study.

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