

Profile of Patients with Mental Health Comorbidities in Patients of T2DM in a Tertiary Health Care Centre in Himachal Pradesh

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| Received: 20.07.2019 | Accepted: 27.07.2019 | Published: 30.07.2019

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Abstract

Original Research Article

Background: Mental ailment in patients of T2DM is a well-known complication, but frequently overlooked. The purpose of this study was to find prevalence of mental ailments in patients of T2DM and to study their profile. **Material and Methods:** Patients with T2DM who visited outpatient department of IGMC Shimla and who were fulfilling the criteria for this study were enrolled for this study. Data regarding history and investigations as per proforma was recorded and analyzed. **Results:** Out of total 202 patients 118 (53.4%) patients had history related to some psychiatric illness. 78 (72%) patients with psychiatric illness had HbA1C = or >9%. Out of total 118 patients 64.4% were on insulin in addition to oral hypoglycemic agent, 62.7 % were aged = or > 50 years, 55.9% had depressive episode, followed by dysthymia 19%, generalized anxiety disorder in 14%. While out of total 202 enrolled patients, 32.6 % had depressive episode followed by dysthymia in 9.4%. **Conclusion:** Prevalence of mental ailments in patients with T2DM was 53.4%, and prevalence of depressive episode was 32.6% as most common mental ailment in these patients.

Keywords: Mental Health Comorbidities, Himachal Pradesh, T2DM.**Copyright © 2019:** This is an open-access article distributed under the terms of the Creative Commons Attribution license which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use (NonCommercial, or CC-BY-NC) provided the original author and source are credited.

INTRODUCTION

India is becoming a hub of diabetes. Due to increased sedentary life, unhealthy dietary habits number of diabetic patients are increasing and so are increasing number of patients with its complications. Mental disorders in diabetic patients is a well-known entity. It has been found in various studies that people living with diabetes are at increased risk for, depression, anxiety disorder, eating disorders, bipolar disorders etc. Mental disorders in diabetes pose a new problem in these patients as they have poor compliance to treatment, and which further leads to further worsening of diabetes and of mental illness associated with diabetes. It increases the cost of illness on one side and morbidity on the other side. Major depressive illness has been found to be one of the most common mental disorder. It affects 6.7% of US adults and more likely to be diagnosed in adults with diabetes [1]. T2DM poses an increased risk for major depressive illness and major depressive disorder increases risk for diabetes. Patients with Diabetes Mellitus suffering from depression have a higher incidence of suicidal ideations. Psychological stress factors play an active role in both etiology and the control of DM. Other contributing factors in the

pathogenesis of Type 2 Diabetes Mellitus (T2DM) include environmental and lifestyle factors, positive family history, ethnicity, and genetics [2].

As per current American Diabetes Association standards of care, "People with diabetes should be assessed by a medical team that may include medical specialist, nurse practitioners, dietitians, pharmacists, and psychiatrists with experience in diabetes". The advisory also recommends that physicians should "Routinely screen for psychosocial problems such as depression and diabetes-related distress, anxiety, eating disorders, and cognitive impairment [3]. Although few diabetic clinics provide a support of mental health professional for these patients. Psychiatric comorbidity in insulin dependent patients was 18% and it consisted depression, anxiety disorders [4]. Insulin dependency leads to fear of injection, fear of dependence, fear of hypoglycemia, myths like once insulin started meaning diabetes has become non treatable and patient is going to die soon. These thoughts lead to further worsening of psychiatric morbidity.

AIMS AND OBJECTIVES

Our aim was to establish a relationship between T2DM and mental disorders, and study the profile of these patients, so that awareness among physicians and psychiatrist can be made to treat such patients more efficiently.

MATERIAL AND METHODS

This study was conducted in the department of Medicine IGMC Shimla. All the patients suffering from T2DM visiting medicine OPD were screened for eligibility criteria. The patients who were known cases of T1DM, secondary diabetes, psychiatric illness, or some other medical illness which causes psychiatric illness were excluded from the study. Also, patients who refused to give consent were excluded from the study. This study was conducted between August 2016 to July 2017. Permission for study was taken from institutional ethics committee.

Brief illness perception questionnaire (B-IPQ), international classification of diseases -10 (ICD-10), Hamilton Depression Rating scale (HAM-D), Hamilton Anxiety Rating Scale (HAM-A), mini international neuropsychiatric interview 6.0. were used to define various psychiatric diagnosis associated with T2DM.

RESULTS

Total 202 patients were enrolled for the study. 118 (53.4%) patients had history related to some psychiatric illness. 78 (72%) patients with psychiatric illness had HbA1C = or >9%. 72.2 % patients with psychiatric illness had HbA1C = or >9%. Out of total 118 patients 64.4% were on insulin in addition to oral hypoglycemic agents. Out of total 118 patients with T2DM and psychiatric illness, 62.7 % were aged = or > 50 years. While out of total 202 enrolled patients 32.6 % had depressive episode followed by dysthymia in 9.4%. The symptoms of depression were found to be proportionately higher among female subjects, patients aged more than 60 years, illiterates, unemployed and retired participants [5].

Table-1: Distribution of psychiatric illness among patients of T2DM

Psychiatric illness	n = 202	%
Present	118	53.4
Absent	84	46.5

Table-2: Distribution of sex in patients of T2DM with or without psychiatric comorbidity

Sex	n=84 (without psychiatric illness)	%	n=118 with psychiatric illness	%
Male	56	66.6	50	42.3
Female	28	33.3	68	57.6

Table-3: Distribution of HbA1C among patients of T2DM with psychiatric comorbidity

HbA1C	n=118	%
= or > 9 %	78	72.2
<9%	40	37.0

Table-4: Distribution of type of treatment in patients of T2DM with psychiatric comorbidity

T2DM with psychiatric illness	n = 118	%
On insulin and Oral hypoglycemic agents	76	64.4
On oral hypoglycemic agents	42	35.6

Table-5: Distribution of age

T2DM with psychiatric illness	n=118	%
Age = or > 50 years	74	62.7
Age < 50 years	44	37.2

DISCUSSION

Psychiatric comorbidity with T2DM is a common entity but mostly overlooked. As in our study 53.4 % patients had psychiatric illness. Out of total 118 patients with psychiatric comorbidity 57.6% patients were females, suggesting that females were more prone for psychiatric comorbidity than males with T2DM.

62.7 % of the patients with psychiatric comorbidity were aged more than 50years. In studies by

Taneja N *et al.*, [6] and Coker *et al.*, [7] respectively 92% and 80% patients, were more than 40 years old.

64.4% patients with psychiatric comorbidity were on insulin and OHAs, suggesting that the patients on insulin are more stressed and more prone for psychiatric comorbidities. The patients on insulin have many myths about insulin, also they be afraid of injections which further aggravate the psychiatric comorbidity. Previously Wilkinson G. et al reported the prevalence of psychiatric morbidity among insulin-

dependent patients is 18%, and consists of depression, anxiety, and attendant symptoms [8].

Kulkarni V *et al.*, [9] reported the prevalence of depressive symptoms was found to be 29.1% among the study participants. In our study 32.6% patients out of total study population were had depressive episodes. And it was most common psychiatric morbidity among all the patients.

CONCLUSION

It is understood now that the patients suffering from T2DM should be screened for associated mental ailments regularly by mental health professional, to avoid lost to follow up, increased cost of therapy and increased rate complications. Also, patients should be counselled about the use of insulin and their misbeliefs about insulin therapy should be properly dealt with

REFERENCES

1. Kessler RC, Chiu WT, Demler O, Walters EE. Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry*. 2005 Jun 1;62(6):617-627.
2. Brown ES, Varghese FP, McEwen BS. Association of depression with medical illness: does cortisol play a role?. *Biological psychiatry*. 2004 Jan 1;55(1):1-9.
3. Association, A. D. (2014). Standards of medical care in diabetes-2014. *Diabetes Care*, 37(Supplement 1), S14-S80.
4. Wilkinson G, Borse DQ, Leslie P, Newton RW, Lind C, Ballinger CB. Psychiatric morbidity and social problems in patients with insulin-dependent diabetes mellitus. *The British Journal of Psychiatry*. 1988 Jul;153(1):38-43.
5. Taneja N, Adhikary M, Chandramouleeswaan S, Kapoor SK. Prevalence of common mental disorders among patients with diabetes mellitus and hypertension in an urban east Delhi slum – a cross sectional study. *Telangana Journal of Psychiatry*, 2015 July-December:1(1);27-32.
6. Taneja N, Adhikary M, Chandramouleeswaan S, Kapoor SK. Prevalence of common mental disorders among patients with diabetes mellitus and hypertension in an urban east Delhi slum – a cross sectional study. *Telangana Journal of Psychology*, 2015:1(1);27-32.
7. Coker AO, Ohaeri JU, Lawal RA, Orija OB. Specific psychiatric morbidity among diabetics at a Nigerian General Hospital. *East African medical journal*. 2000;77(1), 42-45.
8. Wilkinson G, Borse DQ, Leslie P, Newton RW, Lind C, Ballinger CB. Psychiatric morbidity and social problems in patients with insulin-dependent diabetes mellitus. *The British Journal of Psychiatry*. 1988 Jul;153(1):38-43.
9. Kulkarni V, Chinnakali P, Kanchan T, Rao A, Shenoy M, Papanna MK. Psychiatric comorbidities among patients with select non-communicable diseases in a Coastal City of South India. *International journal of preventive medicine*. 2014 Sep;5(9):1139-1145.