ABSTRACT:

OBJECTIVE: To determine the frequency of depression in known diabetics irrespective of duration of the disease.

PLACE OF STUDY: Dow University of Health Sciences, Civil Hospital Karachi.

STUDY DESIGN: Descriptive study

MATERIAL & METHODS: This descriptive study was conducted from January to March 2009. 100 Patients were taken including 43 males and 57 females, who were attending the medical out patient department of civil hospital Karachi. Patients were either on insulin or oral hypoglycemic therapy and were not attending the psychiatry out patient department for any known psychiatric illness and fulfilled the exclusion criteria for this study. After taking proper consent, all participants were interviewed in detail and proper physical examination was carried out and pre-designed questionnaire was filled in. Depression was assessed using ZDRS (Zung Depression Rating Scale) data was analyzed on SPSS system and results were worked out.

RESULTS: This study consisted of 100 participants with mean age of 42.4 +/- including 43 males and 57 females with ratio of 1:1.3. While using ZUNG depression rating scale, as a reference to work out depression in the participants of this study, 11% were found to have depression, out of which 7% are males while 4% are females.

CONCLUSION: In our study depression in known diabetics is common irrespective of duration of diabetes mellitus.

KEYWORDS: Diabetes Mellitus, Depression, Zung Depression Rating Scale.

INTRODUCTION

Depression is the fourth-leading cause of worldwide disease burden and is a leading cause of disability (1). It can strike anyone, but people with diabetes, a serious disorder that afflicts millions of people around the globe, are at greater risk. The chances of becoming depressed increase as diabetes complications worsen. This is simply due to a number of physical and mental accommodations that a diabetic may follow like alteration in lifestyle, work and eating schedule. These modifications may result in considerable stress level culminating into a state of mental illness specifically depression in many diabetics. Diabetes has been reported to at least double the risk of acquiring depression (2,3), with point prevalence approximating 11% in diabetics (2). Research shows that depression leads to poorer physical and mental functioning, so a person is less likely to follow a required diet or medication plan which accentuates the progression of diabetes (5). Despite considerable investigation, the nature of the relationship between depression and diabetes and the mechanisms involved are not completely understood.

It is likely there are multiple mechanisms that differ across individuals. Interestingly, the two disorders have some overlap in their pathophysiology. Both depression and diabetes share metabolic abnormalities including insulin resistance and non-suppression in the Dexamethasone Suppression Test (DST). Insulin resistance and diabetes is independent risk factors for magnetic resonance imaging evidence of brain white matter disease. The possibility that brain white matter disease could predispose individuals with diabetes to depression has been suggested in some studies. Diabetic neuropathy has also been considered as a risk factor for depression in diabetes. Keeping in view all the associated complications of diabetes, recognition of depression is important to improve diabetic care since effective treatment is available and cost effective (6,7). Therefore, considering the increasing population of diabetics suffering form depression, we have conducted a cross-sectional study with focus of prevalence of depression in diabetics who consulted in the out and in-patient
departments of a tertiary care hospital.

MATERIAL & METHODS:
This descriptive study of 100 participants was carried out at Civil Hospital Karachi, Dow University of Health Sciences to assess known diabetic patients with respect to depression. All diabetic patients were either on anti-diabetic medications or insulin therapy for their disease control. Out of 100 participants 43 were males while 57 were females with ratio of 1:1.3, and mean age of 42.4 +/- 9.9. A proper consent was taken and all participants were interviewed in detail along with general physical examination. A pre-designed proforma was filled in. The results were analyzed on SPSS system. All patients with psychiatric illness, thyroid disease, Cushing syndrome, Addison’s disease, end stage renal disease, autoimmune diseases, chronic liver diseases and malignancies were excluded on the basis of history and physical examination. Patients were assessed with respect to depression by using Zung Depression Rating Scale.

RESULTS:
This study comprises of 100 diabetics with mean age of 42.4 +/- 9.9 years including 43 males and 57 females revealed that depression is as high as 11%, where 7% are males and 4% are females as shown in table no. 1. All interviewing participants reply positively for the compliance of anti-diabetic medications. As shown in figure no.1, about 2% were depressed with history of diabetes less than 3 years, while 9% were depressed with history of more than 3 years. 9% of depressed diabetics were professionals while 2% were involved in house related work. The studies have shown in the past that diabetes doubles the prevalence of depression (4).

DISCUSSION
Depression is a major problem worldwide, as far as health is concerned for an individual. It is unclear whether the reason is environmental or biological one. But this is a fact that there is a definite link between depression and diabetes. In our study of 100 patients, who are known diabetics and on different medications, we have evaluated them for depression via Zung Depression Rating Scale. We have excluded from our study any patient who is known depressed or having some risk factors for depression or receiving any treatment for it. However, we included those who are diagnosed with diabetes in past and are on either insulin or anti-diabetic medications for their disease control. The male to female ratio was 1:1.1. Majority of our patients were married. Occupation of majority of our female patients was confined to house work, while rest were either skilled workers, retired or possessing small business. Only 6% had coexisting hypertension. As compared to other similar studies, we found that patients who have longer post-diagnostic periods are more prone to develop depression as compared to patients who are recently diagnosed. Among them those who were skilled workers were found to be more depressed as compared to those whose occupation is related to house work. This difference might be due to greater level of stress in skilled jobs as housewives get engaged in different sort of domestic works like taking care of their children, cooking, maintenance of their homes which departs their con-
centration from isolation. Although various studies have been conducted in various parts of world regarding prevalence of depression among diabetics, similarly, we also conclude via our descriptive study that unusual care of health in terms of eating habits and regular medications intake leads to greater stress in these patients which may ultimately results in psychologically depressed state what we referred to as depression. The course of depression in diabetics is often chronic (8) and may adversely affect the course of co-existing medical conditions (9,10,11). In this study, there is increased frequency of depression among diabetics who are between 30 to 39 years as shown in figure 2. To summarize the above mentioned results, we conclude that screening for depression among diabetics may lead to early detection of the disease which ultimately have better prognostic effects on diabetes course itself. Depressed people should be counseled and if appropriate be referred to psychiatrists for optimum management of the condition. This will ultimately lead to delayed diabetic complications and comfortable.

CONCLUSION
This study showed that depression is common in diabetic patients either on insulin or oral hypoglycemic medications, irrespective of duration of diabetes

REFERENCE: