Treating Depression in Diabetic Patients: Is There an Alternative to Medications?

In the general population, depression is exceedingly common, sometimes difficult to diagnose, and undertreated but remediable (1, 2). In patients with chronic conditions such as diabetes, depressive disorders seem to occur even more frequently (3), have a high rate of recurrence (4), and seem to be associated with worsened medical outcomes (5). The high prevalence of depression in diabetes (3), the frequency of depression onset before diabetes complications (6, 7), the similarity in the hypothalamic–pituitary axis changes found in depression and poorly controlled diabetes mellitus (8), indications that diabetic rats are more susceptible to neurochemical and behavioral changes similar to those found in depression (9), and mood shifts often associated with glycemic changes (10) all raise interesting questions about the direction of causality and biological mechanisms linking depression and diabetes. However, there is very little evidence to provide clear guidance on either issue.

Of practical clinical importance, growing evidence shows that depressive disorders in adults are associated with one of the key markers of medical outcome: worsened glycemic control (4, 6, 11, 12). Depressive disorders may place diabetic patients at increased risk for long-term complications (6, 7, 13). Previous studies have suggested that the extent of the difference in glycemic control between depressed and nondepressed patients (6, 11, 12) is equivalent to that of the glycemic differences between the intensive and conventional treatment groups of the Diabetes Control and Complications Trial (14). This suggests that if it persists over time, hyperglycemia-associated depression may have substantial medical consequences. It also underscores the importance of recognition and proper treatment of depression in diabetic patients.

In this issue, Lustman and colleagues (15) present results from their study examining the effects of cognitive behavioral therapy (CBT) in the treatment of depression among patients with type 2 diabetes. Cognitive behavioral therapy has been repeatedly demonstrated to be an effective psychotherapeutic method for the treatment of depression. However, its use is overshadowed by the dramatic changes in pharmacologic therapy for depression; as a result, patients who receive a diagnosis of depression at a medical office are commonly treated with antidepressant medications. However, CBT seems to be as effective as medications in treating depression, and combining CBT with antidepressants may help prevent relapse (16). Further study is needed to examine these issues in diabetic populations. Therapy with antidepressants, once started, often continues for a long time, incurring substantial cost to the health care system. In addition, antidepressants can have side effects that make their use more complicated in diabetic patients (17). This study helps to clarify the potential benefits of a nonpharmacologic approach in a population with this common medical illness.

The investigators randomly assigned adult patients with type 2 diabetes to a CBT group or a control group. Both groups participated in a diabetes education program throughout the trial and were followed by using standardized methods for assessing symptoms of depression and glycemic control. In brief, the intervention was found to reduce symptoms of depression in more patients and improve glycemic control at the 6-month follow-up. As the authors point out, the study has important limitations: It is small and involves a highly selected group of referred patients. Moreover, the control group received less intervention in terms of personal contact; thus, the beneficial effect of CBT may be a function of the amount of time spent with a clinician rather than a specific effect of the intervention. Finally, CBT was not compared directly with antidepressant medication. Nonetheless, the study has some meaningful clinical implications for treatment of diabetic patients.

First, it demonstrates that whatever the mechanism that underlies the relation between depression and diabetes, a standard nonpharmacologic method can reverse the symptoms of depression in a manner, in a time frame, and to the degree that would be expected in depressed patients without any medical illness. Thus, CBT seems to be a safe and effective alternative to pharmacologic interventions. Second, as an element of their syndrome, depressed patients typically have negative distortions about their ability to achieve goals and carry out tasks of daily living. Cognitive behavioral therapy is specifically oriented toward the identification and remediation of such cognitive distortions. Thus, it is particularly suited for use when cognitive distortions and negative attitudes may impede successful undertaking of a complex therapy, such as that required for diabetes. Finally, education is one of the cornerstones of diabetes treatment. Incorporation of cognitive behavioral methods in the education of diabetic patients could benefit patients with symptoms of depression. Moreover, such methods could enhance the education of patients who feel overwhelmed by the demands of diabetes care but would not be considered depressed from a clinical perspective. When pessimism and negativism affect a patient's capacity for self-treatment decision making, CBT may be a useful addition to medical and educational approaches. The glycemic improvement noted by Lustman and colleagues supports this suggestion. Furthermore, cognitive behavioral methods not only are useful in treating individual patients but may also be used in groups (18, 19). Because much diabetes education is carried out in groups, CBT may be a valuable adjunct.

Clearly, further research on the application of CBT is needed to delineate the ways in which this form of psychotherapy can be used in the education and medical treatment of diabetic patients. More generally, empirically grounded psychological methods such as CBT could be valuable components of the treatment of diabetes and other chronic illnesses (20).

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