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LETTER TO THE EDITOR

In response to the article, *'Severity and Factors Associated with Depressive Symptoms Among Type 2 Diabetic Patients in Vietnam,'* by Nguyen, et al., published in JAFES Vol. 38 No. 2.

Before Explaining Depression Solely Caused by Diabetes, All Other Causes Must Have Been Ruled Out

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We were interested to read the article by Nguyen et al. on a cross-sectional study on the prevalence of depression assessed with the Patient Health Questionnaire-9 (PHQ-9) in 419 patients with type 2 diabetes (T2D).[1] It was found that 45% of the included patients had depression of varying severity.[1] Mild, moderate, moderately severe and severe depressive symptoms were found in 36.0%, 7.6%, 1.4% and 0.2%, respectively.[1] Patients who had been treated for T2D for a longer period of time were more likely to have depressive symptoms.[1] Depression was positively correlated with current alcohol consumption, comorbidities and irregular physical activity.[1] Patients with major depression (high PHQ-9 score) were more likely to have not taken their antidiabetic medication in the last month.[1] The study is excellent, but some points should be discussed.

The first point is that causes of depression other than T2D were not sufficiently ruled out. Alternative causes of depression that were not considered were loss of close relatives, burnout, insomnia, pressure from superiors, poor social status, job loss, drugs, medications, mental comorbidities, relationship breakdown, pregnancy, menopause, physical or sexual abuse, major life changes, chronic pain, loneliness, financial problems and genetic predisposition. Unless alternative causes of depression have been adequately ruled out, depression cannot be solely attributed to T2D.

The second point is that the included patients were not systematically subjected to cerebral imaging.[1] A study analyzing the frequency of depression in T2D patients should also correlate the frequency of depression with organic abnormalities of the central system (CNS). Therefore, we should know how many patients had diabetic encephalopathy, previous stroke or hemorrhage, history of infectious or immunological encephalitis or meningitis, demyelinating disease, cognitive impairment or dementia, neurodegenerative disease, or a primary or secondary brain tumor.

The third point is that there was no mention of how many of the included patients were already diagnosed with depression before the onset of T2D. Knowing if they had depression before the onset of T2D is crucial, as these patients should have been excluded from a study analyzing the association between depression and T2D.

The fourth point is that the patients were not examined for the presence of anxiety. Since depression can be associated with generalized anxiety disorder, social anxiety disorder, panic attacks, phobias, obsessive-compulsive disorder or post-traumatic stress disorder,[2] it would have been imperative to ask the included patients about this aspect of depression as well.

The fifth point is that the increase in PHQ-9 score with duration of diabetes may also be due to the fact that as the duration of T2D increases, more complications and comorbidities develop, thus the individual patient may require more medication. These comorbidities can trigger depression or exacerbate existing depressive symptoms.

The sixth point is that HbA1c levels were not included in the analysis and correlated with the depression score. Poor diabetes control could be another risk factor for depression in T2D.

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In summary, this interesting study has limitations that influence the results and their interpretation. Addressing these limitations could strengthen the conclusions and reinforce the message of the study. Before attributing depression to persons with diabetes, solely to T2D alternative causes of depression need to be considered and thoroughly ruled out.

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