

Increased Risk of Cardiovascular Disease and Mortality in Patients with Diabetes and Coexisting Depression: A Nationwide Population-Based Cohort Study (*Diabetes Metab J* 2021;45:379-89)

Jin Hwa Kim


Department of Endocrinology and Metabolism, Chosun University Hospital, Gwangju, Korea

Diabetes can be stressful and an emotional burden. People with diabetes are more likely to experience depression than are those in the general population. Previous studies have suggested a bidirectional relationship between diabetes and depression [1,2]. Comorbid depression in type 2 diabetes mellitus was associated with poor glucose control, lower quality of life, poor diabetes self-management, and increasing risk of diabetic microvascular complications [3-6].

In this article entitled, “Increased risk of cardiovascular disease and mortality in patients with diabetes and coexisting depression: a nationwide population-based cohort study,” Jung et al. [7] evaluated the risk of cardiovascular disease (CVD) and mortality in patients with diabetes with comorbid depression using the Korean National Health Insurance Service and claims database, a large dataset covering 97.1% of the South Korean population. The authors showed that people with diabetes with comorbid depression had significantly higher risk for CVD and all-cause mortality. Especially, diabetic patients with longer duration of depression showed a higher risk of CVD and mortality. In my opinion, the strength of this study is that CVD risk and mortality were evaluated according to duration of depression in diabetic patients with newly diagnosed depression using big data from a large-scale national representative database. Considering ethnic difference of diabetes and depression, this study is meaningful for reflecting the current

status of South Korean with diabetes. Also, the authors overcame the concerns of various affecting factors. The authors have shown their results in this manuscript using careful analysis considering various confounding factors and explained the potential underlined mechanisms.

In my opinion, it would be interesting to evaluate the long-term effect of intervention of depression on CVD risk and mortality in diabetic patients. In patients with depression, following recent acute coronary syndrome, 24-week treatment with escitalopram compared with placebo resulted in lower risk of major adverse cardiac events after a median of 8.1 years [8]. Comparing the effects of psychological and pharmacological interventions for depression in patients with diabetes and depression would be interesting. I expect well-designed prospective studies. Although the authors aimed to adjust variable confounding factors, the potential effects of smoking and alcohol would be considered for depression. As the authors mentioned, status of glucose control, like HbA1c and glucose lowering agents, could be considered. In my opinion, their findings would be more valuable if they excluded the impacts of comorbidities such as chronic disease and cancers. Lastly, I expect to extend the study with longer follow-up and to explore other psychologic aspects of diabetic patients. Further large prospective studies should reveal the association between depression and CVD for ideal management in people with diabetes.

Corresponding author: Jin Hwa Kim  <https://orcid.org/0000-0003-2703-7033>
Department of Endocrinology and Metabolism, Chosun University Hospital, 365 Pilmundaero, Dong-gu, Gwangju 61453, Korea
E-mail: endocrine@chosun.ac.kr

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Moreover, in the coronavirus disease 2019 (COVID-19) pandemic, individual management based on mood is needed for people with diabetes.

CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

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