

Prevalence of Depression and Glucose Abnormality in an Urbanizing Rural Population of Bangladesh (*Diabetes Metab J* 2015;39:218-29)

Tomoyuki Kawada

Department of Hygiene and Public Health, Nippon Medical School, Tokyo, Japan

Natasha et al. [1] conducted a cross-sectional study on the prevalence of depression in 2,293 adults of Bangladesh, stratified by the level of glucose abnormality. The authors also checked the association between depression and glucose abnormality by logistic regression analysis. They defined pre-diabetes mellitus (DM) as the state of impaired fasting glucose and/or impaired glucose tolerance, and Montgomery-Asberg Depression Rating Scale (MADRS) was used for the assessment of depression. The 22.35% of male and 29.46% of female with pre-DM and 26.58% male and 36.27% female with DM had depressive symptoms. In addition, adjusted odds ratios (ORs; 95% confidence intervals [CIs]) of pre-DM and of DM for depression were 2.49 (95% CI, 1.76 to 3.51) and 3.27 (95% CI, 2.33 to 4.60), respectively. I have some concerns on their study.

First, Sun et al. [2] also examined the association between depression and impaired glucose regulation and DM by considering durations of disease. They conducted a cross-sectional study by using Patient Health Questionnaire 9-item version in 229,047 patients, aged ≥ 40 years, and logistic regression analysis was applied for their analysis. Adjusted ORs (95% CIs) of previously diagnosed diabetes against normal glucose regulation for probable depression and sub-threshold depression were 1.61 (95% CI, 1.39 to 1.87) and 1.14 (95% CI, 1.06 to 1.24), respectively. In addition, insulin treatment was significantly associated with increased OR for probable depression. Although causality of the association cannot be determined by a cross-

sectionals study, content and status of medication should also be considered for the association between depression and DM.

Second, the authors used MADRS for the assessment of depression. I understand that the authors know the difference between clinical diagnosis of depression and depressive score by questionnaire for epidemiological survey. As MADRS is not popular in Western countries and caution should be paid to apply study outcome to other ethnic countries.

Finally, Roy and Lloyd [3] also reported that the prevalence of depression is higher in women than men regardless of diabetes by a systematic review. In contrast, Natasha et al. [1] presented no significant sex difference of depression in subjects with glucose abnormality, which was presented in their Table 5. In addition, Zhang et al. [4] reported that patients with depression had higher glycosylated hemoglobin (HbA1c), reduced likelihood of achieving HbA1c target of $< 7.0\%$, and were likely to have self-reported hypoglycemia in the previous 3 months. As another important biomarker for the standard diagnostic procedure of DM and for the status of glucose abnormality, the authors should consider HbA1c for study in the future.

CONFLICTS OF INTEREST

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

Corresponding author: Tomoyuki Kawada
Department of Hygiene and Public Health, Nippon Medical School,
1-1-5 Sendagi, Bunkyo-Ku, Tokyo 113-8602, Japan
E-mail: kawada@nms.ac.jp

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