

Age at Diagnosis of Diabetes in Young Men is Associated with Albuminuria [Letter]

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Dear editor

Zhang Q's team published a paper titled "Age at Diagnosis of Diabetes in Young Men is Associated with Albuminuria" in *Diabetes, Metabolic Syndrome and Obesity*.¹ Congratulations to the team on their research findings.

The study included 1900 patients with T2D categorized into two groups based on age at onset (early: ≤ 45 years and late: > 45 years). Through the use of univariate and multivariate analysis methods, this study successfully identified risk factors for albuminuria. The results demonstrate that early-onset disease is a significant risk factor for albuminuria, with a prevalence rate of 35.08% compared to 29.92% in patients with late-onset disease. Significant risk factors were identified for patients with late-onset disease, including disease duration and glycosylated hemoglobin (HbA1c) levels. Conversely, the risk was associated with increased body mass index (BMI) and systolic blood pressure for patients with early-onset disease.

The findings hold significant value in the academic field and have positive implications for guiding the prevention, diagnosis, and treatment of complications in patients with T2D. This study provides new insights for research in this field.

However, this study has some limitations that require further exploration and improvement. Firstly, as noted by the authors, the study design was cross-sectional, and the study population was limited to hospitalized patients in a single center, which may have limited the generalizability and reliability of the findings to some extent. Future studies should use a multicenter, prospective, long-term follow-up design and expand the sample to include patients from different geographic regions and medical centers better to understand the relationship between age of onset and albuminuria.

Secondly, the study's baseline data was not comprehensive enough and lacked detailed analysis of demographic characteristics, socioeconomic status, lifestyle, smoking and alcohol consumption history, diabetes treatment status, medication history, and associated comorbidities. All of these factors may have an impact on the occurrence of albuminuria.^{2,3} Therefore, the accuracy of the available results may be somewhat compromised. Since the study subjects were hospitalized patients, most relevant data should be available from the medical records. Therefore, researchers should thoroughly review and organize medical record data to include these critical factors in the analysis, enhancing the accuracy and reliability of the results.

The study found differences in risk factors for albuminuria between genders but did not explore the specific causes and mechanisms of these differences in depth. Previous studies suggest that a significant decrease in estrogen levels in menopausal women may be associated with the development of albuminuria.^{4,5} Therefore, it is important to focus on sex hormone levels, especially estrogen, in female patients, given that this study used 45 years as the cut-off for proteinuria risk analysis. To reveal the potential mechanisms behind gender differences, it is recommended that authors further analyze the menopausal status, contraceptive use, and sex hormone levels of female patients.

By implementing these recommendations, researchers can improve the quality of their studies and provide a more accurate scientific basis for managing type 2 diabetes and its complications.

Disclosure

The author declares no conflicts of interest in this communication.

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