Response

Diabetes Metab J 2017;41:77-78
https://doi.org/10.4093/dmj.2017.41.1.77
pISSN 2233-6079 · eISSN 2233-6087

dmj
DIABETES & METABOLISM JOURNAL

Clinical Course and Risk Factors of Diabetic Retinopathy in Patients with Type 2 Diabetes Mellitus in Korea (*Diabetes Metab J* 2016;40:482-93)

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We sincerely appreciate the interests and comments on our study, "Clinical course and risk factors of diabetic retinopathy in patients with type 2 diabetes mellitus in Korea" which was published in *Diabetes & Metabolism Journal*.

Establishing the clinical course and risk factors of diabetic retinopathy (DR) is important to prevent blindness and improve a quality of life of diabetes patients [1]. Based on the results of this study, we suggested that the glycemic control, diabetes duration, age, and albuminuria are the significant predictive factors of the development of DR [2]. Furthermore, among them, glycemic control is the most important modifiable factor, even in the patients with a long duration of diabetes.

Previous epidemiologic studies on the development and progression of DR have been suggested [3-5]. As Dr. Kim mentioned in his letter, the prevalence of DR in the early stage of diabetes of our cohort differed from that of UK Prospective Diabetes Study (UKPDS) and Wisconsin Epidemiologic Study of Diabetic Retinopathy (WESDR) [6,7]. In our hospital-based cohort, among total 1,486 patients who were enrolled and received screening test of DR from 2000 to 2006, 387 patients (26.5%) had DR initially. Of the 496 patients who were newly diagnosed with type 2 diabetes mellitus, only 31 patients (8.3%) had DR at the time of diabetes diagnosis. The prevalence of DR in our cohort was lower than those of WESDR (28.8% less than 5 years) and UKPDS (37% at diagnosis of diabetes). This difference could result from the different characteristics of enrolled study population and study design between the studies. Our study designed to confirm the clinical course and establish predictive factors of DR in the patients at risk for developing DR. The mean diabetes duration was 6.7 years, and many patients who developed DR within 5 years from the diagnosis of diabetes could be excluded in this study. More generalized screening for diabetes and better care of the metabolic conditions of diabetes in our cohort compared with previous study could be another factor related with the delayed progression of DR.

The recent Action to Control Cardiovascular Risk in Diabetes Follow-On (ACCORDION) Eye Study suggested that intensive blood pressure control had no effect on the clinical course of DR [8]. Although some previous studies including UKPDS demonstrated that intensive blood pressure control delayed the progression of DR significantly [9], the proper blood pressure target for DR is still inconclusive. For this reason, when we conducted statistical analysis, the presence of hypertension at enrollment was adjusted; however, we could not reflect the blood pressure change of each subject during the whole follow-up period. We have a plan to analyze the association between metabolic profiles and DR reflecting the longitudinal data such as regular checked glycosylated hemoglobin, blood pressure, or lipid level during the study using a linear mixed model in the near future.

We would like to express our sincere gratitude to Dr. Kim for the interest in our study and the thoughtful comments.

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CONFLICTS OF INTEREST

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

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