

Presence of Carotid Plaque Is Associated with Rapid Renal Function Decline in Patients with Type 2 Diabetes Mellitus and Normal Renal Function (*Diabetes Metab J* 2019;43:840-53)

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We appreciate your interest and comments on our article entitled “Presence of carotid plaque is associated with rapid renal function decline in patients with type 2 diabetes mellitus and normal renal function” that was published in *Diabetes & Metabolism Journal* [1]. You pointed out the importance of age and duration of diabetes in the progression of diabetic kidney disease (DKD). Also, you provided evidences to support that DKD and atherosclerosis share similar risk factors such as inflammation.

We want to emphasize that the ultimate goal of the study was to find means to identify patients with rapid renal function early—when renal function is normal—so interventions can be undertaken to stop or slow the decline. This study focused on the association between baseline carotid atherosclerosis and early rapid renal function decline during a 6-year follow-up in a cohort of patients with type 2 diabetes mellitus (T2DM) and baseline estimated glomerular filtration rate (eGFR) ≥ 60 mL/min/1.73 m². Although age is one of the important factors for eGFR decline in patients with DKD, age-related loss of kidney function is mainly due to other important comorbidities, such as diabetes and hypertension [2,3]. Moreover, we defined rapid decline in eGFR as those who had an eGFR decline $>3.3\%$ per year, in accordance with previous studies [4,5]; this threshold corresponds approximately to an eGFR loss ≥ 2.5 mL/min/1.73 m²

per year, which reflects approximately three times more rapid decline than expected by normal aging [6]. As for the duration of diabetes, previous studies demonstrated that duration of diabetes is not associated with rapid renal function decline in patients with T2DM and preserved renal function decline after adjustment of clinical risk factors [1,7,8].

We agree that it would have better reflected renal outcome if we had included temporal changes in carotid intima-media thickness or glycosylated hemoglobin over time instead of cross-sectional baseline parameters. Further prospective trials are warranted to examine the beneficial effects of intensive medical treatment or an improvement in glycemic control and carotid atherosclerosis on prevention or delay of rapid renal function decline in patients with T2DM and preserved renal function. Nevertheless, our study clearly demonstrates that rapid renal function decline in patients with T2DM is associated with carotid atherosclerosis at baseline.

CONFLICTS OF INTEREST

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

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