point and investigated whether the groups differed with regard to the narrower definition of a stroke/transitory ischemic attack (TIA). The proportion of stroke/TIA (International Statistical Classification of Diseases and Related Health Problems, Tenth Revision [ICD-10] I60-I64, G45) to total cerebrovascular disease (I60-I69, G45) was 95% in all groups; therefore, the groups did not differ on this important aspect. A possible bias due to an increased incidence of epilepsy caused by an increased stroke rate in the β-blocker group is therefore not given. The important request from Liu and Kuo, also regarding the specification of stroke and TIA vs microvascular disease (ICD-10 I65-I69, 5% of patients in all groups), gave us the opportunity to clarify this, for which we are grateful.

In this context, the authors also mentioned the lack of separation of dihydropyridine (DHP) and non-DHP calcium channel blockers (CCBs). We agree with the authors that this would have been interesting, also against the background of different fields of application. For example, non-DHP CCBs, like β-blockers, are increasingly used for diseases such as AF. The breakdown would certainly have been interesting, but again, the rate of stroke and TIA was not different from the other groups.

It should be stressed again that our study does not show pathophysiological correlations, but statistical associations. Nevertheless, the possible role of the kallikrein-bradykinin system suggested by the authors for a different benefit of angiotensin receptor antagonists vs ACE inhibitors is intriguing. A role for this molecular signaling pathway in the development of epilepsy has already been proposed and demonstrated in molecular studies.1-4 Although a significant role for this signaling pathway focuses in particular on the ACE inhibitors that interact with it, rather than angiotensin receptor antagonists (which showed a particularly protective effect in our study) further analysis of this signaling pathway and the mechanisms and the signaling pathways we discussed is certainly a worthwhile goal for future studies. If our data provoked such important thoughts as those expressed by Ryu and Kuo, this is very rewarding for us.

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