



Letter to the Editor

Comments on diabetes complications severity index (DCSI) in atrial fibrillation risk prediction - Reply



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Dear Editor,

I appreciate the interest of Babayigit et al. in our recent study entitled "Comparisons of changes in the adapted diabetes complications severity index and $\text{CHA}_2\text{DS}_2\text{-VASc}$ score for atrial fibrillation risk stratification in patients with type 2 diabetes mellitus: a nationwide cohort study" [1]. This is an investigation about the comparative effect of dynamic changes in two different risk scores for the development of atrial fibrillation (AF) - the $\text{CHA}_2\text{DS}_2\text{-VASc}$ score and the adapted diabetes complications severity index (DCSI) score - in patients with new onset diabetes mellitus (DM). A huge nationwide sample of patients with new onset DM was followed for about 6 years for the occurrence of AF. The incidence of AF was studied by construction of stratified Kaplan-Meier plots. Further, Cox models were constructed for assessment of relative risks. The main study findings included that the area under the receiver operating characteristics (AUROC) for the adapted DCSI change in predicting AF (0.79, 95% CI = 0.78–0.80) was significantly higher than

the $\text{CHA}_2\text{DS}_2\text{-VASc}$ score change (0.63, 95% CI = 0.62–0.64). Diabetes may cause atrial cardiomyopathy that promotes AF [2]; both $\text{CHA}_2\text{DS}_2\text{-VASc}$ score and adapted DCSI include parameters that are pathophysiologically related with AF. It has been well known that diabetes complications or comorbidities change with time; hence, the comparison of the two dynamic risk score systems would be of clinical relevance. The two dynamic values were compared by AUROC, and a significantly better prediction power could be determined for adapted DCSI. The clinical implication of these findings is clear, that is, global monitoring the dynamic nature of the medical comorbidities is a pivotal issue for AF risk stratification in diabetic patients.

Conflict of interest

None.

References

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