Comparison of New-Onset Diabetes Mellitus among Patients with Atrial Fibrillation or Atrial Flutter

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Abstract

Background and objectives: The objective was to compare the rate of onset of diabetes mellitus (DM) in patients with atrial fibrillation (AF) as compared with atrial flutter (AFL).

Methods: The incidence of DM through the national cohort registry in 14,014 newly diagnosed AF and 14,014 newly diagnosed AFL was investigated. Propensity score matching was used to optimize comparability between these 2 groups. Further analysis with Cox model, Kaplan-Meier methods and competing risk analysis were used to compare the incidence of DM in patients with AF and AFL.

Results: The overall incidence of diabetes was higher among cases in AF cohort (1,653 diabetes cases, 11.7%) than in AFL cohort (1,448 diabetes cases, 10.3%). The risk of diabetes was 1.17-fold greater in the AF cohort compared with that in the AFL cohort (95% confidence interval [CI], 1.09-1.25; p<0.001). After adjustment for all relevant confounding factors in the competing risk regression model, the risk of diabetes remained significantly increased 1.16-fold in the AF cohort (95% CI, 1.09-1.25; p<0.001).

Conclusions: The message of higher incidence rate of DM in patients with AF compared to those with AFL was delivered in this study.

Keywords: Keywords: Atrial fibrillation; Atrial flutter; Diabetes mellitus.

Funding and Conflicts of Interest

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