IMPACT OF CHRONIC BETA-BLOCKER THERAPY ON DEVELOPMENT OF NEW-ONSET DIABETES MELLITUS IN ASIAN POPULATION

Poster Contributions
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Background: There have been several reports that beta blocker (BB) therapy is associated with a slightly higher incidence of new-onset diabetes mellitus (DM). It is still controversial whether the chronic BB therapy is a risk factor of new onset DM, especially in Asian population.

Methods: We investigated the 4,231 patients (pts) who had HbA1C < 6.0% and fasting glucose < 100 mg/dL (BB group=1,109 and control group=3,122). To adjust potential confounders including age, gender, hypertension, hyperlipidemia, chronic kidney disease, hyper/hypo-thyroidism, lipid profile, diuretics, a propensity score matched analysis was performed using the logistic regression model. The primary end-point was the cumulative incidence of new-onset DM (HbA1C > 6.5% or fasting glucose > 126 mg/dL). Also, Multivariable Cox-regression analysis adjusted by aforementioned variables was performed to determine the impact of BB therapy on the incidence of new-onset DM

Results: Mean follow-up duration was 908±558 days in all-pt group, and 976±552 days in propensity score matching group. Baseline characteristics was similar between the two groups. In Kaplan-Meyer curve, there was no difference between the two groups (p=0.486, figure A). Also, in cox-regression analysis performed in all pts, BB therapy was not associated with the increased incidence of primary end-point (figure B).

Conclusions: In our study, there was no clear association with BB therapy and new-onset DM in a series of cardiovascular pts in Asian population.