Prevention

STATIN, RISK OF DIABETES AND IMPACTS ON MORTALITY: INSIGHT FROM TAIWAN NATIONAL HEALTH INSURANCE DATABASE

ACC Moderated Poster Contributions
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Background: Statins improve outcomes but is associated with development of diabetes in clinical trials. We used a nationwide insurance database to investigate the relationship of statins and diabetes, and its impact on outcome.

Methods: From the 1-million-population, subjects who had been continuously treated with statins ≥30 days during 2000-2003 and those who had never been exposed to statin before 2004 were identified. Among those, men ≥45 and women ≥55 years old during 2000-2003 were selected to form the cohort. Diabetes was confirmed by continuous prescription of anti-diabetics drug ≥30 days. Those who had been diagnosed of diabetes before entering the cohort were excluded. Among those who were naive to statins before 2004, the controls were matched with the statin counterparts on a 4:1 ratio based on age, sex and the year of entry into the cohort.

Results: There were 8,772 and 35,088 eligible subjects in the statin and the control group respectively for this analysis. During the median follow-up of 7.5 years, the incidences of new-onset diabetes were 2.2% and 1.9% respectively in the statin and the control group (the hazard ratio: 1.15, P<0.001) whereas the all-cause mortality was reduced by 32% (P<0.001). The net clinical benefit composed of new-onset diabetes and all-cause mortality favored the utilization of statins (HR: 0.90, 95% CIs: 0.85-0.94; P<0.001).

Conclusions: Exposure to statins increased risk of new-onset diabetes. But the overall risk-benefit profile favored treatment with statins.