

Comparison of Statins Dose Intensity on HbA1c Control in Outpatients with Type 2 Diabetes: A Prospective Cohort Study

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Abstract : The effect of statins dose intensity (SDI) on glycemic control in patients with existing diabetes is unclear. Also, there are many contradictory findings were reported in the literature; thus, it is limiting the possibility to draw conclusions. This project was designed to compare the effect of SDI on glycosylated hemoglobin (HbA1c%) control in outpatients with Type 2 diabetes in the endocrine clinic at Hospital Pulau Pinang, Malaysia, between July 2015 and August 2016. A prospective cohort study was conducted, where records of 345 patients with Type 2 diabetes (Moderate-SDI group 289 patients and high-SDI cohort 56 patients) were reviewed to identify demographics and laboratory tests. The target of glycemic control (HbA1c \leq 7% for patient \leq 65 years, and \leq 8% for patient \geq 65 years) was estimated, and the results were presented as descriptive statistics. From 289 moderate-SDI cohorts with a mean age of 57.3 ± 12.4 years, only 86 (29.8%) cases were shown to have controlled glycemia, while there were 203 (70.2%) cases with uncontrolled glycemia with confidence interval (CI) of 95% (6.2–10.8). On the other hand, the high-SDI group of 56 patients with Type 2 diabetes with a mean age 57.7 ± 12.4 years is distributed among 11 (19.6%) patients with controlled diabetes, and 45 (80.4%) of them had uncontrolled glycemia, CI: 95% (7.1–11.9). The study has demonstrated that the relative risk (RR) of uncontrolled glycemia in patients with Type 2 diabetes that used high-SDI is 1.15, and the excessive relative risk (ERR) is 15%. The absolute risk (AR) is 10.2%, and the number needed to harm (NNH) is 10. Outpatients with Type 2 diabetes who use high-SDI of statin have a higher risk of uncontrolled glycemia than outpatients who had been treated with a moderate-SDI.

Keywords : cohort study, diabetes control, dose intensity, HbA1c, Malaysia, statin, type 2 diabetes mellitus, uncontrolled glycemia

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