

中文題目：使用 SGLT2 inhibitors 與新生失智症相關性之研究：一國家人群基礎縱斷世代研究
英文題目：The association between SGLT2 inhibitors and New-onset Dementia: A Nationwide Population-Based Longitudinal Cohort Study

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Background: The use of sodium–glucose cotransporter-2 (SGLT2) inhibitors as antidiabetic drugs has been proven effective in the prevention of cognitive decline. However, the association of the use of SGLT2 inhibitors and new-onset dementia (NOD) remains unclear. This study aimed to evaluate the risk of NOD with the use of SGLT2 inhibitors.

Methods: This is a population-based cohort study utilizing Taiwan’s National Health Insurance Research Database. Each patient (aged ≥ 20 years) who took SGLT2 inhibitors was assigned to the SGLT2 inhibitor group. Sex-, age-, diabetes mellitus duration-, and drug index date-matched randomly selected patients without SGLT2 inhibitors use were assigned to the non-SGLT2 inhibitor group. The study outcome was NOD.

Results: A total of 976,972 patients newly diagnosed with type 2 diabetes mellitus (DM) between 2011 and 2018 were included in this study. After the patients’ matching (1:2) by age, sex, duration of DM, and drug index date of the patients, a total of 105,611 patients were placed in the SGLT2 inhibitors group and a total of 211,222 patients were placed in the non-SGLT2 inhibitors group (control) for analysis. The SGLT2 inhibitor group was associated with a lower risk of NOD (adjusted hazard ratio 0.92; 95% confidence interval 0.85–0.99; $P = 0.046$). The sensitivity analyses were consistent with the main analyses.

Conclusion: Patients with type 2 DM who were prescribed SGLT2 inhibitors were associated with a lower risk of NOD compared with those not prescribed SGLT2 inhibitors in real-world practice. These findings provide a rationale for conducting clinical trials to prove such a benefit for prevention of dementia in future.