events. We calculated the rate of study outcomes among CHC patients with different genotypes.
Results We identified 1589 CHC patients newly initiating GLE/PIB. Mean age was 61.7 (SD 12.6) years and 53% were women. The major CHC genotype was type 2 (60.2%), followed by type 1b (16.5%) and mixed type (5.7%). We found the rate of SVR12 was relatively lower among patients with genotype type 6 (91.1%), type 2 (91.4%) and type 3 (92.2%) compared with genotype type 1 (100%), type 5 (100%), mixed type (96.7%) and unknown type (93.8%). Furthermore, 14.7% of patients were found to have ALT elevation (>3 times the ULN). Most of these were genotype type 2 (8.7%), followed by type 1b (1.8%) and type 3 (1.2%). No patient had total bilirubin levels over three times the ULN.
Conclusion and relevance The effectiveness and safety of GLE/PIB in Taiwan may vary in CHC patients with different genotypes. The findings could be strong grounds for future large scale prospective studies to confirm the association between CHC genotypes and treatment outcome with GLE/PIB.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

5PSQ-199 USE OF SODIUM GLUCOSE COTRANSPORTER 2 INHIBITORS AND RISK OF FRACTURE IN TYPE 2 DIABETES PATIENTS: A MULTI-INSTITUTIONAL COHORT STUDY IN TAIWAN

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10.1136/ejhpharm-2021-eahpconf.318

Background and importance The Canagliflozin Cardiovascular Assessment Study (CANVAS) indicated that use of sodium glucose cotransporter 2 inhibitors (SGLT2i) may increase the risk of fracture compared with placebo. However, the association has remained uncertain in previous real world studies, and many factors (eg, severity of diabetes) were not considered in the analyses.
Aim and objectives To evaluate the risk of fracture associated with the use of SGLT2i in type 2 diabetes patients.
Material and methods We conducted a retrospective cohort study by analysing the electronic medical record (EMR) data from the Chang Gung Research Database (CGRD), covering 1.3 million people in Taiwan (6% of the population). We selected type 2 diabetes patients newly receiving SGLT2i from 2016 to 2018. Dipeptidyl peptidase 4 inhibitor (DPP4i) was considered the active comparator as no association has been found between DPP4i and fractures. Using the propensity score derived from the patient's age, sex, baseline body mass index (BMI), systolic blood pressure, HbA1c, renal function, comorbidities and co-medications, we matched SGLT2i new users 1:1 with DPP4i new users. The primary outcome was hospitalisation due to fracture at any site. We followed patients from initiation of SGLT2i or DPP4i to fracture hospitalisation, death, last clinical visit or 31 December 2019. We used the Cox proportional hazard to estimate the fracture risk associated with SGLT2i and DPP4i use.
Results We identified 10 736 patients for each group receiving SGLT2i or DPP4i. Mean age was 59.3 (SD 12.5) years and 39.6% were women. Mean BMI, HbA1c and eGFR were 28.0 (SD 4.7) kg/m^2, 8.8 (SD 1.9)% and 94.7 (SD 31.8) mL/min/1.73 m^2, respectively. The incidence rates of fracture were 3.1 and 4.2 per 1000 person years for SGLT2i and DPP4i users, respectively. The risk of fracture was similar for SGLT2i users (HR 0.79, 95% CI 0.51 to 1.23) and DPP4i users.
Conclusion and relevance Different from the findings of CANVAS, our analysis of real world EMR data in Taiwan did not reveal any positive association between SGLT2i and fracture risk.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

5PSQ-200 COMPARATIVE CARDIOVASCULAR EVENTS ASSOCIATED WITH DENOSUMAB VERSUS ZOLEDRONATE IN THE ELDERLY: A MULTI-INSTITUTIONAL COHORT STUDY IN TAIWAN

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10.1136/ejhpharm-2021-eahpconf.319

Background and importance Osteoporosis and atherosclerosis share similar risk factors and pathological mechanisms in developing cardiovascular events. Two long acting injections, denosumab and zoledronate, are commonly used for osteoporosis treatment due to better persistence in therapy, but comparisons of long term cardiovascular events between these two drugs remain unclear, especially in the elderly Asian population.
Aim and objectives To compare the cardiovascular event risk between denosumab and zoledronate in patients with osteoporosis.
Material and methods We conducted a retrospective cohort study analysing the largest multi-institutional electronic medical records database in Taiwan, covering 1.3 million individuals (6% of the Taiwan population). We included osteoporotic patients aged over 65 years without cardiovascular events at baseline, newly receiving denosumab or zoledronate during 2015–2016, and used 1:1 propensity score matching to ensure balanced characteristics between the two groups. The primary study outcome was the composite of cardiovascular events, including cardiovascular death, myocardial infarction, ischaemic stroke and heart failure. We followed these patients until the occurrence of cardiovascular events, last clinical visit or the end of the database (31 December 2019) and performed a Cox proportion hazard model to compare the cardiovascular event risks between denosumab and zoledronate.
Results We included 3908 denosumab and 803 zoledronate new users with a mean age of 75.7 (SD 9.4) years, of whom 19.8% were men. After matching, baseline characteristics, including sex, age, comorbidities and concomitant medications, were balanced between the denosumab and zoledronate new users. After a median follow-up of 3.8 years, we identified 59 and 61 cardiovascular events in patients with denosumab and zoledronate, respectively. The incidence rate of cardiovascular