so socioeconomic, comorbidities and service year, patients receiving anti-diabetic medications were not associated with higher risk of dementia compared to non-users (Odds Ratio [OR], 1.23; 95% confidence interval [CI], 0.94-1.62). We also found that exposure to specific anti-diabetic drugs were not related to the risk of developing dementia metformin only (OR, 1.06; 95% CI, 0.69-1.64), sulfonylureas only (OR, 1.04; 95% CI, 0.78-1.40), insulin use only (OR, 0.95; 95% CI, 0.60-1.51), insulin co-transporter 2, versus GLP-1 agonists, in second and third line for the treatment of T2DM patients, using NMA. METHODS: A systematic review of randomized, controlled trials and Bayesian NMA were conducted to compare HbA1C lowering of CANA versus the GLP-1 agonists liraglutide and exenatide. NMAs were conducted separately by background treatment (metformin or metformin plus sulfonylurea) and trial duration (26/52/104 weeks). Networks were based on treatment and dose-specific nodes. Non-informative priors were used. Relative efficacy was evaluated based on absolute differences in HbA1C reductions and Bayesian probabilities. RESULTS: In dual therapy, trials were identified reporting HbA1C reduction versus baseline at Weeks 26 (n = 8), 52 (n = 6), and 104 (n = 2). At Week 26, Level 2, CANA 300mg (26% of OR = 0.70, 95% CI = 0.67-0.73) was similar to similar (Week 52: Δ = 0.03%/0.09%) reductions versus exenatide 5µg, and lower/similar versus exenatide 10µg (Week 26: Δ = 0.2%/0.10%). Reductions were greater for liraglutide 1.8/2.0mg, versus differences versus CANA ranging between 0.20% and 0.61%. At 104 weeks, reductions were similar for CANA 100mg (Δ = 0.04%/0.02%) and greater for CANA 300mg (Δ = 0.13%/0.13%) compared to liraglutide 1.2/1.8mg. In triple therapy, 3 trials reporting HbA1C reduction at Week 26 were identified to compare CANA versus liraglutide and exenatide. Reductions for CANA 100mg were similar to exenatide 5µg (Δ = 0.02%) and lower versus exenatide 10µg and liraglutide 1.8mg (Δ = 0.24% and 0.33%, respectively). Reductions for CANA versus exenatide 5µg were greater versus exenatide 10µg and liraglutide 1.8mg (Δ = 0.01% and 0.08%). CONCLUSIONS: NMA results for dual therapy suggest increasing relative efficacy of CANA over time versus 0.1% of adults. CONCLUSION: CANA 300mg reaching similar HbA1C reductions as GLP-1 agonists at 104 weeks. NMA results for triple therapy suggest at least similar efficacy for CANA 300mg.

PDB11

REAL-WORLD CANAGLIFLOZIN UTILIZATION: IMPACT ON GLYCEMIC CONTROL IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

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OBJECTIVES: Canagliflozin, a sodium-glucose co-transporter 2 (SGLT2) inhibitor, is an effective and well-tolerated therapy in patients with type 2 diabetes mellitus (T2DM) in clinical trials. The objective of this study was to evaluate the impact of CANA on glycemic control in a real-world population. METHODS: A retrospective cohort analysis of adult patients with T2DM was conducted using 2013 data from the payor-Seval MORE2 Registry, which consists of commercial, managed Medicare and Medicaid medical, pharmacy and laboratory claims. Patients with T2DM ≥ 18 years of age with ≥ 60 days of canagliflozin supply and HbA1C test results within 120 days pre- and 60 days post their first observed canagliflozin prescription fill were included. Patients with other types of diabetes, enrollment gaps and missing data were excluded. The difference between HbA1C levels pre- and post-canagliflozin was measured by a paired-t test. Subgroup analysis of patients with HbA1C ≥ 7% at baseline was conducted. RESULTS: Of the 1,260 patients included, 707 patients claimed for canagliflozin in 2013, 70% of patients received a 100mg dose. Median follow-up time to HbA1C measurement was 106 days. Mean (SD) age was 56.8 years (8.7), and 57% were female. The majority of patients (85%) were on monotherapy with CANA, 5% were on dual therapy and 5% were on triple therapy. Mean HbA1C pre-canagliflozin was 8.3% (95% CI: 8.2%, 8.5%) and post-canagliflozin was 7.6% (95% CI: 7.5%, 7.8%). Mean difference in HbA1C pre-post was 0.7% (p = 0.001). In the subset of patients with HbA1C > 7% at baseline (81%), the mean difference pre- to post-canagliflozin was 0.9% (95% CI: 0.8%, 1.1%). CONCLUSION: In a real-world setting, patients with T2DM had improved glycemic control as measured by HbA1C after receiving canagliflozin. HbA1C lowering in patients with baseline HbA1C ≥ 7% was similar to the HbA1C improvement for all adults. The HbA1C results were generally similar to those observed in clinical trials.