doi.org/10.36721/PJPS.0000.00.0.REG.000-000.1

Comparing efficacy and safety of glucagon-like peptide 1 agonist versus sodium-glucose cotransporter 2 (SGLT-2) inhibitors in Chinese patients with type 2 diabetes mellitus

Yuanbo Wei[1]*, Huihui Ma[2] and Tianshuai Wei[3]
[1]Medical College, Xuchang University, Xuchang, Henan, China
[2]Department of Endocrinology, Henan Provincial People's Hospital,Zhengzhou, Henan, China
[3]Department of Imaging, Yuzhou Municipal Hospital of TCM, Yuzhou, Henan, China

Abstract: To compare efficacy and safety of Dula vs. dapagliflozin in Chinese T2DM patients. We enrolled Chinese T2DM patients aged ≥18 years with history of poorly controlled blood glucose. Eligible subjects were randomized (1:1:1) to receive Dula (0.75mg, weekly subcutaneously), Dula (1.5mg, weekly subcutaneously), or dapagliflozin (10 mg daily). Patients were monitored for 26 weeks, with the primary endpoint being changes in HbA1c from baseline to week 26. Secondary endpoints included changes in body weight (kg), % of patients achieving HbA1c targets, fasting blood glucose (FBG) levels, blood glucose profiles at specific times of the day and HbA1c (%) from baseline to week 26. Safety was assessed. Three hundred patients (100 per group) completed the study. Dula 1.5mg showed the greatest reduction in HbA1c (%) compared to Dula 0.75mg and dapagliflozin. Dula 1.5mg was more effective than Dula 0.75mg in reducing HbA1c levels. A similar trend was observed when comparing dapagliflozin to Dula 0.75mg. Dula 0.75mg resulted in a greater decrease in HbA1c levels from baseline. Dula 1.5mg achieved a greater reduction in HbA1c levels compared to dapagliflozin. Similar trends were seen in weight and blood glucose reduction. Gastrointestinal (GI) side effects were common. Both drugs demonstrated a favorable safety profile and risk-benefit ratio. Our study indicates that both Dula and dapagliflozin are effective in diabetes management. However, Dula showed superior glycemic control compared to dapagliflozin. Overall, Dula appears to be a more favorable treatment option for diabetes.

Keywords: Dulaglutide; SGLT-2 inhibitor; Glucagon-like peptide-1; Dapagliflozin; Diabetes mellitus