



Navigating the Future of Diabetes Treatment with New Drugs: Focusing on the Possibilities and Prospects of Enavogliflozin

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The evolution of diabetes care is a testament to the relentless pursuit of innovation and improved patient outcomes. Countries around the world, including Korea, are making pivotal contributions to this global fight against diabetes mellitus. About one decade ago, Korea achieved a major advancement in diabetes care with the introduction of novel dipeptidyl peptidase-4 (DPP-4) inhibitors such as gemigliptin and evogliptin. These drugs laid the foundation for Korea's journey to becoming a contributor to the global diabetes management landscape [1,2].


Since those discoveries, use of sodium glucose cotransporter 2 (SGLT2) inhibitors and glucagon like peptide-1 (GLP-1) agonists has occurred. Enavogliflozin, a novel SGLT2 inhibitor, has garnered much attention for its efficacy comparable to that of the globally recognized dapagliflozin. This finding was recently confirmed by Han et al. [3] in 200 randomized patients with type 2 diabetes mellitus (T2DM) from 2020 to 2022.

Their study was a comprehensive analysis of the effects of enavogliflozin and dapagliflozin on various health parameters in patients with T2DM. The study compared the effects of enavogliflozin 0.3 mg/day and dapagliflozin 10 mg/day on patients with T2DM for 24 weeks. Various parameters were measured and analyzed, including glycosylated hemoglobin (HbA1c) level, fasting plasma glucose (FPG), systolic and diastolic blood pressure, body weight, and urine albumin-creatinine ratio (UACR). Though both agents significantly improved HbA1c, FPG, blood pressure, body weight, and UACR, most parameters showed no significant differences, suggesting similar efficacy in diabe-

tes management. These findings contribute to a growing body of evidence supporting the effectiveness of these drugs in improving glycemic control and other health outcomes in people with T2DM. Additional studies are needed to explore the long-term effectiveness and potential applicability of these drugs in various patient populations. If the findings are substantiated, particularly with respect to the major adverse cardiovascular outcomes identified with existing SGLT2 inhibitors, the clinical utility of enavogliflozin may be more widely recognized for all patients worldwide.

In addition to SGLT2 inhibitors, the recent emergence of GLP-1 agonists has offered new potential in diabetes management. These agents have a similar development history to SGLT2 inhibitors, but also have demonstrated pleiotropic effects such as improvements in cardiovascular disease risk factors and prognosis, and they are expected to have a large impact in diabetes treatment [4,5]. In addition, the anticipated emergence of a range of incretin-based agonists beyond GLP-1 agonists is drawing global attention to the emergence of more effective and safer agents. These upcoming drugs support personalized, multi-dimensional treatment with optimized efficacy and minimized side effects.

Every country and every innovation is a thread in the intricate tapestry of global diabetes care, and this collective spirit is rooted in an international collaboration that envisions eradication of diabetes and related metabolic diseases. In this evolving treatment realm, from DPP-4 inhibitors to the latest SGLT2 inhibi-

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tors, GLP-1 agonists, and emerging dual and triple incretin agonists, each advance is a beacon of hope. The global community is united, with many countries, scientists, and innovators playing a pivotal role in this story of hope, innovation, and change. We look forward to seeing more Korean-made drugs play a larger role in this treatment.

CONFLICTS OF INTEREST

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