당뇨병 혈당강하제 최신지견: Sodium-glucose cotransporter 2 억제제와 glucagon-like peptide 1 유사체

구 보 경
서울의대 내분비내과

Update of new antidiabetics: sodium–glucose cotransporter 2 inhibitors and glucagon-like peptide 1 analogues

Bo Kyung Koo, MD, PhD[a,b]

[a]Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Korea, [b]Department of Internal Medicine, Boramae Medical Center, Seoul, Korea

Blood glucose control is very important for reducing diabetic complications especially in those with young age and short duration of diabetes[1, 2]. Metformin is the first line medication for the individuals with type 2 diabetes who cannot achieve HbA1c target with life style modification[3, 4]; however, combination therapy added to metformin is usually needed for the achievement of HbA1c target. Medications for glucose control should be individualized considering the characteristics of each medication and patient[3, 4]. During the last 5 years, large randomized control trials on sodium–glucose cotransporter 2 (SGLT2) inhibitors[5-8] and glucagon-like peptide 1 (GLP-1) analogues[9-13] have been reported to reduce major cardiovascular events and progression of renal complications, which resulted in the change of the guideline on the choice of glucose-lowering medications[3, 4]. For patients with type 2 diabetes and chronic kidney disease, use of SGLT2 inhibitor or GLP-1 analogue shown to reduce risk of chronic kidney disease progression, cardiovascular events, or both should be considered[3]. Among patients with atherosclerotic cardiovascular disease at high risk of heart failure or in whom heart failure coexists, SGLT2 inhibitors are preferred[3]. In addition, both can reduce body weight. Based on these strengths, the American Association of Clinical Endocrinologists and American College of Endocrinology consider GLP-1 anlgues and SGLT2 inhibitors have priority over other medications as a combination drug with metformin[4]. However, adverse effects should be considered: SGLT2 inhibitors can cause genitourinary tract infection, dehydration, and euglycemic ketoacidosis, and GLP-1 analogue usually cause gastrointestinal discomfort and should be avoided in the patients with pancreatitis[3, 4]. In addition, SGLT2 inhibitors may be less effective in patients with low glomerular filtration rate.

Bo Kyung Koo, MD, PhD
Department of Internal Medicine, Seoul National University
Boramae Medical Center
20 Boramae-ro 5-gil,Dongjak-Gu,Seoul 07061, Korea
E-mail: bokyungkoomd@gmail.com
Phone: +82-2-870-2225; Fax: +82-2-831-2826

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