

Lecture Abstract or Synopsis for publication

OPTIMIZING RISK REDUCTION STRATEGIES IN PATIENTS WITH DIABETES AND ATHEROSCLEROTIC CARDIOVASCULAR DISEASE

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Abstract

Atherosclerotic cardiovascular events are higher in patients with versus without diabetes. Specific risk enhancers for cardiovascular events in patients with diabetes include long duration (≥ 10 years for type 2 diabetes mellitus (S.4.3-20) or ≥ 20 years for type 1 diabetes mellitus), microvascular complications (albuminuria ≥ 30 mcg of albumin/mg creatinine, retinopathy, neuropathy), eGFR < 60 mL/min/1.73 m² and an ABI < 0.9 . Guideline directed risk reduction strategies for lowering the burden of atherosclerotic cardiovascular events include anti-platelet therapy, renin-angiotensin aldosterone antagonists and cholesterol lowering therapy. Glycemic control begins with metformin followed by dual therapy for patients with A1c $\geq 1.5\%$ (12.5 mmol/mol) above their glycemic target. A patient-centered approach should guide the choice of pharmacologic agents to improve glycemic control. Considerations for dual therapy include comorbidities (atherosclerotic cardiovascular disease, heart failure, chronic kidney disease), hypoglycemia risk, impact on weight, cost, risk for side effects, and patient preferences. Cholesterol lowering therapy begins with moderate-intensity statin in high-risk patients and high-intensity therapy in very-high risk patients. Choices for incremental reductions in LDL and non-HDL cholesterol include ezetimibe and PCSK9 inhibitors. Selection of either ezetimibe versus a PCSK9 inhibitor depends on the LDL cholesterol level > 30 mg/dL and comorbidities including recent acute coronary syndrome, multivascular disease and chronic kidney disease, and costs.

Keywords

Type 2 diabetes, atherosclerotic cardiovascular disease, atherosclerosis, statins, anti-diabetic therapies.