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Lipid and cardiometabolic features of T2DM patients achieving stricter LDL-C and non-HDL-C targets in accordance with ESC/EAS 2019 guidelines
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Abstract

Background: New recommendations call for lowering LDL-C < 55 mg/dL and non-HDL-C < 85 mg/dL in very-high cardiovascular risk (VH-CVR) patients with type 2 diabetes (T2DM). This study assessed the proportion of VH-CVR diabetics currently meeting these primary and secondary lipid targets, and which therapies/phenotypes predict combined goals achievement. **Methods:** We analysed the cardiometabolic phenotype, use of lipid-modulating drugs (LMD), pre- and post-LMD lipids levels, and CV complications among 1196 T2DM with high (n = 221; 18%) or VH-CVR (n = 975; 82%). Among the latter, the characteristics of combined lipid goal-achievers (n = 158) were compared to those of non-achievers (n = 817), with subgroup analyses of on-statin patients (n = 732) and those with established CVD taking statins (n = 362). Presence of statin-associated muscle symptoms (SAMS) was also recorded. **Results:** 75% of VH-CVR patients were on statins. Both LDL-C and non-HDL-C goals were achieved by 16.2% of all VH-CVR, 19.3% of on-statin VH-CVR, and 24.3% of patients with established CVD taking statins. Achieving both targets was associated with high-intensity statins, specifically rosuvastatin, [statin + ezetimibe] combination, lower baseline LDL-C, smaller LDLs, lower TG and lipoprotein(a), and reduced metabolic syndrome frequency. SAMS reporting did not differ between achievers and non-achievers. **Conclusions:** More than 80% of patients are above targets. To bridge this gap, apart from treating more LMD-naïve/refractory diabetics, one should consider for LDL-C to put most patients on high-intensity statins, more often with ezetimibe and, within statins, to switch preferably to rosuvastatin. As regards non-HDL-C, the off-target patients' phenotype suggests that intensifying lifestyle measures against metabolic syndrome should supplement current therapies. © 2020 Belgian Society of Cardiology.

Author Keywords

cardiovascular risk; guidelines; LDL-C; non-HDL-C; T2DM; target

Index Keywords

angiotensin receptor antagonist, antihypertensive agent, antilipemic agent, apolipoprotein B, atorvastatin, C reactive protein, cholesterol, corticosteroid, creatine kinase, creatinine, dipeptidyl carboxypeptidase inhibitor, ezetimibe, fibric acid derivative, hemoglobin A1c, high density lipoprotein cholesterol, hydroxymethylglutaryl coenzyme A reductase inhibitor, incretin, lipoprotein A, low density lipoprotein cholesterol, rosuvastatin, simvastatin, thyrotropin, thyroxine, triacylglycerol, uric acid; adult, aged, albumin to creatinine ratio, albuminuria, alcohol consumption, Article, body mass, cardiometabolic risk, cerebrovascular disease, controlled study, coronary artery disease, cross-sectional study, diabetic retinopathy, diastolic blood pressure, dyslipidemia, erectile dysfunction, fat mass, fatty liver, female, glomerulus filtration rate, glucose blood level, human, insulin sensitivity, insulinemia, major clinical study, male, metabolic syndrome X, microangiopathy, muscle disease, non insulin dependent diabetes mellitus, peripheral occlusive artery disease, polyneuropathy, smoking, systolic blood pressure, turbidimetry, vascular disease, waist circumference

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