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Selected Abstracts

Low density lipoprotein target achievement in very high and extreme cardiovascular risk patients during a cardiac rehabilitation program

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Background: Low-Density lipoprotein (LDL) cholesterol is one of the most relevant CardioVascular (CV) risk factors. Very low therapeutic targets have been set by guidelines in the secondary prevention setting in order to reduce the risk of ischemic event recurrence. However, many studies demonstrate that these targets are largely unreached in the real-life setting, particularly in the higher cardiovascular risk classes. Our aim was to evaluate LDL target achievement in very high and extreme CV risk patients during a Cardiac Rehabilitation (CR) program.
Methods: A total of 940 patients with recent acute coronary syndrome or a diagnosis of chronic coronary syndrome who participated in a CR program were e nrolled between January 2012 and December 2023 at the Niguarda Hospital (Milan). For each patient, LDL and Lipid Lowering Therapies (LLT) were evaluated at the beginning and at the end of the CR program, together with anthropometric, clinical, biochemical, and instrumental parameters. LDL targets were considered <70 mg/dL for patients before August 2019, <55 mg/dL after 2019 and <40 mg/dL for extreme CV risk subjects.
Results: Mean age was 66.9±0.6 years, 82.9% of the subjects were males, and LDL cholesterol changes from 107.3±39.3 to 64.5±24.6 from the beginning to the end of CR. At CR discharge, 88% of the subjects were on high-intensity statin (atorvastatin or rosuvastatin) therapies, and 38.1% were on ezetimibe, while only 4.6% of the subjects were treated with PCSK9 inhibitors and 0.9% with bempedoic acid. 53.1% of the patients reached the LDL therapeutic target with particularly positive peaks in 2018 (72.8%, the year before the release of the latest dyslipidaemia guidelines that reduced the target) and 2022 and 2023 (78.8% and 75.7% respectively). 29.8% of the patients had extreme CV risk, they achieved the target of LDL <40 mg/dL only in 16.4%, with a higher prevalence in the latest years (32% in 2022 and 22.7% in 2023).
Conclusions: Our results demonstrate a higher achievement of LDL cholesterol target in a secondary prevention program when compared to previous observational studies. The longer distance from guidelines publication, together with the new pharmacological treatment, could be the reason for these positive results. However, more attention should be paid to extreme CV risk both in terms of identification and treatment.