

## The values of low-density lipoprotein cholesterol and acute coronary syndrome

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**Introduction:** All individuals with a history of acute coronary syndrome (ACS) should receive intensive statin therapy in order to achieve the desirable low-density lipoprotein cholesterol (LDL-C) values recently modified in the guidelines of the European Society of Cardiology.

**Purpose:** To evaluate the lipid profile control of ACS patients with 6 year follow-up.

**Methods:** Retrospective study of 138 consecutive patients (P) admitted in our hospital for ACS during one year:  $63 \pm 13$  years, 76.8% male, 26.9% with history of coronary artery disease and 56.5% of dyslipidemia. A 6 year follow-up was performed and a therapeutic goal was defined as LDL-C values below 55mg/dL and an LDL-C reduction of  $\geq 50\%$  from baseline, according to the guidelines of the European Society of Cardiology. High/moderate/low intensity statins were defined according to the therapeutic recommendations of the American College of Cardiology. Univariate analysis was performed.

**Results:** The mean LDL-C value at ACS admission was  $112.5 \pm 36.9$ mg/dL. 96.4% of patients were discharged on statins: 41.3% with rosuvastatin 10mg, 15.2% with simvastatin 20mg, 15.2% with atorvastatin 10mg, 10.9% with pitavastatin 2mg and 6.5% with atorvastatin 20mg.

Antidyslipidemic therapy was changed in 7.9% of patients in the scheduled evaluation 1 month after discharge.

The mean LDL-C value after a 6 year follow-up was  $83.6 \pm 27.2$ mg/dL, with 85.8% P not meeting the defined therapeutic goal. Most of them (97.5%) continued medicated with statin, however, only 28.3% of P were on high-intensity statins and 3.8% were on low-intensity statins, despite the verified statistically significant association between LDL-C values and statin type used (high/medium/low intensity,  $p < 0.05$ ).

**Conclusion:** Despite the proven benefit of statins, especially in high-risk patients, there are still aspects to improve, notably in the establishment of more effective therapies in order to achieve the desired new goals.