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Clinical Characteristics of Statin Management in a Cohort with Cardiovascular Risk in Colombia

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INTRODUCTION

Low-density lipoprotein cholesterol (LDL-C) control is the main goal in atherosclerotic cardiovascular disease (ASCVD)[1-3]. Cardiovascular disease (CVD) risk profiling and LDL-C achievement evidence is necessary in Colombia.

OBJECTIVE

To retrospectively characterize a cohort of patients admitted to the hospital due to acute coronary syndrome (ACS) in a Colombian institution from Jan-2017 to Aug-2020.

METHODS

- 148 adult patients with at least 6-month of follow-up since the ACS event were included.
- Patients were grouped by risk profile (2020 AACE/ACE Consensus Statement).
- LDL-C goal achievement and stratification by treatment scheme was explored at baseline and during the follow-up period.
- No sample size calculation was performed to test the change from baseline in LDL-C after 6 months.

RESULTS

- The mean age was 66.7 (SD:11.5) years, 93 (62.8%) were men. 61 (41.2%) had unstable angina, 55 (37.2%) had Diabetes.
- 79 (53.4%) and 69 (46.6%) patients were in the very high-risk (VHR) and extreme risk (ExR) groups, respectively.
- At hospital admission, 126 (85.1%) patients used statins and 22 (14.9%) were not Statin medicated (Table 1). 54 (83.1%) and 53 (86.9%) used high-intensity statins (HIS) in the VHR and ExR, respectively, the reminder used moderate-intensity statins (Figure 1). 67 (84.8%) in the VHR and 61 (88.4%) in the ExR were not at LDL-C goal.
- After 6 months, there was no significant LDL-C reduction in the VHR: -14.9% (95% CI -30.4-0.5; p =0.058) and the ExR: -7.8% (95% CI -23.2-7.6; p=0.318). 46 (70.8%) patients in the VHR and 50 (82.0%) in the ExR did not achieve the LDL-C goals. Overall, 7 (4.7%) patients had treatment adjustment (HIS+Ezetimibe/PCSK9i).

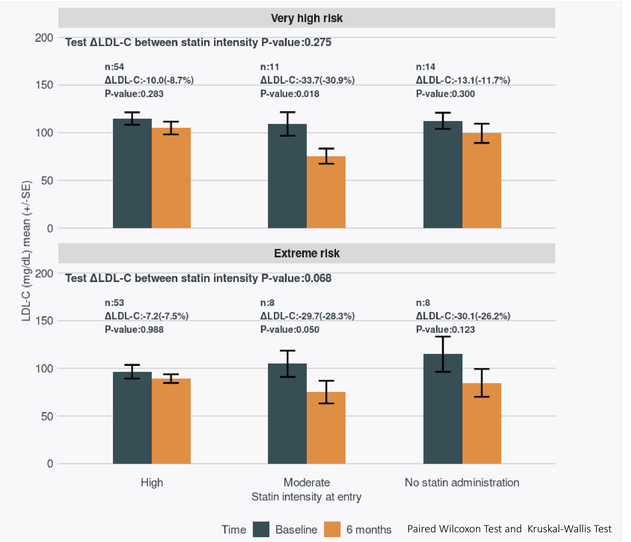
POSTER HIGHLIGHT: This real-world analysis of ACS patients admitted to hospital demonstrates the need for risk stratification, treatment formulation accordingly, and close patient follow-up. To maximize healthcare outcomes and avoid therapeutic inertia, timely optimization of lipid-lowering treatment is necessary.

Table 1: Treatment characteristics of individuals at cardiovascular risk analyzed at the beginning of follow-up and at 6 months.

Characteristic	Baseline, N=148	6 months, N=148	P-value*
LDL-C (mg/dL), Mean(±SD)	107.1(±47.6)	93.9(±41.0)	0.001
HDL-C (mg/dL), Mean(±SD)	42.0(±10.3)	42.1(±12.7)	0.86
Total cholesterol (mg/dL), Mean(±SD)	186.1(±118.5)	159.8(±50.2)	0.012
Triglycerides (mg/dL), Mean(±SD)	161.9(±84.6)	150.4(±99.7)	0.11
LDL-C goal, n(%)			
No	128(86.5%)	112(75.7%)	0.002
Yes	20(13.5%)	36(24.3%)	
Statin treatment, n(%)			
High	107(72.3%)	119(80.4%)	0.019
Moderate	19(12.8%)	16(10.8%)	
No statin usage	22(14.9%)	13(8.8%)	
Ezetimibe/PCSK-9 inhibitor, n(%)			
NO	119(98.3%)	71(91.0%)	0.030
YES	2(1.7%)	7(9.0%)	
ND/NA	27	70	

*Paired t-test; Cochran's Q test; Fisher's exact test

Figure 1: LDL-C levels in individuals at very high and extreme risk of cardiovascular disease at the start of follow-up and at 6 months.



CONCLUSIONS

Limited LDL-C goal achievement was observed. Timely optimization of lipid-lowering treatment is needed to maximize healthcare outcomes and avoid therapeutic inertia. It is strongly recommended to include treatment adherence, education, and lifestyle modifications in the LDL-C goal achievement assessment.

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