

LIPID TARGET ACHIEVEMENT AFTER PERCUTANEOUS CORONARY INTERVENTION: A MULTICENTRE STUDY FROM BANGLADESH

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Background: Although percutaneous coronary intervention (PCI) restores coronary perfusion, a large proportion of patients continue to carry residual cardiovascular risk due to suboptimal lipid control. Effective lipid control (guideline-recommended) is therefore an essential part of secondary prevention. This study aimed to assess the frequency of lipid target non-achievement after PCI. **Methods:** This multicentre observational study included 83 consecutive post-PCI patients from the BMU, DNMC, and Asgar Ali Hospital in Bangladesh. At routine 3-month follow-up, a fasting lipid profile was performed, and additional investigations were done when clinically indicated. Baseline demographic, clinical, and lipid data were summarized appropriately, lipid target achievement was assessed for LDL-C, HDL-C, total cholesterol (TC), and triglycerides (TG), and factors associated with LDL-C target non-achievement were analyzed using univariable tests and multivariable logistic regression. **Results:** The mean age was 53.1 ± 11.2 years, with a male predominance (79.5%). Hypertension & diabetes mellitus were present in 63.9% & 51.8%, respectively. Median lipid values were 131.0 mg/dL for TC, 74.0 mg/dL for LDL-C, 38.0 mg/dL for HDL-C, and 130.0 mg/dL for TG. Despite revascularization, lipid target non-achievement was strikingly high, most notably for LDL-C (79.5%) and HDL-C (72.3%), followed by TG (42.2%) and TC (14.5%). In univariable comparisons, fatty liver disease was associated with TC target non-achievement ($p=0.018$), and hypertension was associated with TG target non-achievement ($p=0.020$). In multivariable analysis, increasing age was independently associated with lower odds of LDL-C target non-achievement (AOR 0.93, 95% CI 0.87–0.99; $p=0.034$). **Conclusion:** Increasing age was independently associated with better LDL-C target attainment. The proposed management approach in this cohort mainly favored intensification of statin-based therapy, along with addition of ezetimibe and or eicosatetraenoic acid, highlighting the need for continued lipid optimization beyond revascularization. These findings emphasize the imperative for aggressive and sustained lipid-lowering strategies beyond revascularization, including timely intensification of statin therapy and incorporation of adjunctive agents such as ezetimibe and eicosapentaenoic acid.

Keywords: Post PCI, Lipid target, Secondary prevention, Bangladesh.

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