Statin use and lipid control in patients developing first ST-segment elevation myocardial infarction

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ABSTRACT

Introduction: Cardiovascular disease (CVD) continues to be a leading cause of mortality and morbidity worldwide, including in Malaysia. This study aimed to investigate the association between statin therapy use for primary prevention of CVD in patients prior to their first ST-segment elevation myocardial infarction (STEMI), as well as lipid control post-first STEMI. **Methods:** A single-centre retrospective cohort study was conducted at a Malaysian secondary hospital. The study screened all patients admitted for their first episode of STEMI in the year 2020. Information data of patients meeting the inclusion and exclusion criteria were extracted from an electronic health information system (eHIS) and compiled into a pre-prepared data collection form for analysis. **Results:** A total of 177 study subjects were enrolled. Despite the study subjects presented with high CV risk (mean 10-year CVD risk: 27.5% with a standard deviation of 18.6), only a mere 15.8% of the patients received statin therapy for primary prevention of CVD prior to the first STEMI. The study did not find any significant association between statin therapy for primary prevention of CVD and CV risk categories before the first STEMI. Furthermore, three months after the STEMI event, the mean low-density lipoprotein-cholesterol (LDL-C) level remained above the recommended target, measuring 2.11 (0.89) mmol/L. **Conclusion:** The utilization of statin therapy for primary prevention of CVD in study subjects prior to their first STEMI remains surprisingly low, despite well-established guidelines and strong evidence supporting its efficacy. This study highlights the need for increased awareness and adherence to guidelines to improve the management of CVD risk factors.