Title: Prevalence and outcomes of newly diagnosed dyslipidemia in patients presenting with ST-elevation myocardial infarction

Category: Acute Coronary Syndromes

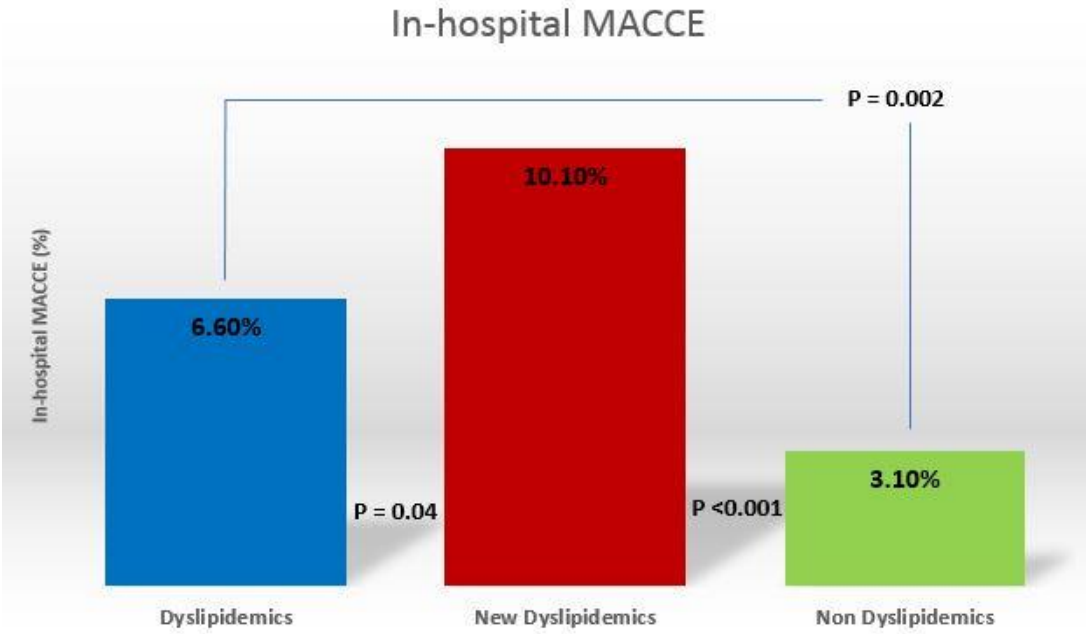
Abstract

Background: Dyslipidemia is one of the main risk factors for coronary artery disease. If appropriate screening was not done, dyslipidemia could remain undiagnosed for years. We are looking into the outcomes of undiagnosed dyslipidemia in patients presenting with ST-elevation myocardial infarction (STEMI).

Methods: A descriptive multi-center analysis was conducted on 1111 patients in 4 tertiary care hospitals on patients admitted with STEMI between the period of June 2014 to June 2017. The aim was to determine the prevalence and outcomes of known dyslipidemic patients versus newly diagnosed dyslipidemics. Dyslipidemia was defined as an LDL greater than 160 mg/dl.

Results: Out of the 1111 Patients who presented with STEMI, 122 patients were known to have dyslipidemia, 129 were newly diagnosed and 860 had no dyslipidemia. There was no significant difference in age, gender, hypertension, smoking or diabetes between the three groups. The newly diagnosed dyslipidemia group had a mean low-density lipoprotein cholesterol (LDL-C) level of 190 mg/dl versus 122 mg/dl in known dyslipidemia group. In-hospital and 1-year major adverse cardiovascular and cerebrovascular event (MACCE) were significantly higher in newly diagnosed dyslipidemics versus known dyslipidemics.

Conclusion: In the setting of STEMI, undiagnosed dyslipidemia carries a higher risk for in-hospital and 1-year MACCE in comparison to patients with known dyslipidemia. The previous finding could be partially explained by the higher LDL levels in the newly diagnosed dyslipidemics.



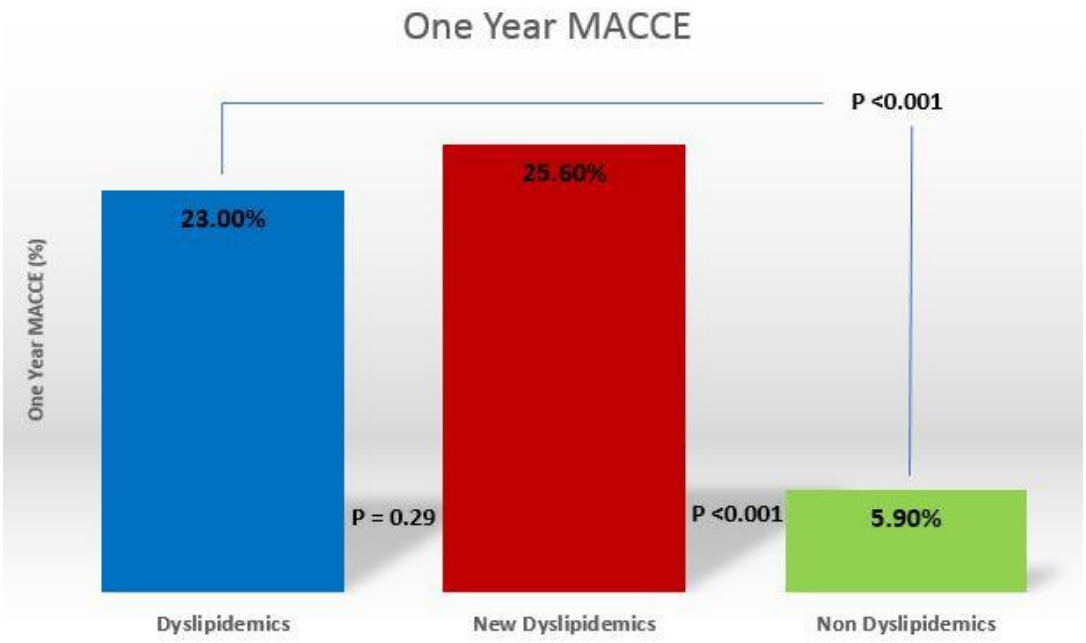


Figure 2: comparison between in-hospital and 1-year MACCE in dyslipidemics, new dyslipidemics and non-dyslipidemics