**Impact of heterozygous familial hypercholesterolemia on mortality in ST-segment Elevation Myocardial Infarction patients**

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**BACKGROUND AND PURPOSES:**
Heterozygous Familial Hypercholesterolemia (HeFH) is an underdiagnosed form of dyslipidemia associated with higher risk of myocardial infarction (MI). Identifying patients with HeFH during hospitalization for a ST segment Elevation MI (STEMI) would allow counselling, family screening and more aggressive dyslipidemia treatment. Data on prognosis of HeFH patients after an index STEMI is lacking. The aim of this study was to assess the prevalence and impact on outcome of possible HeFH in patients admitted for STEMI.

**METHODS:**
Lipid profiling was performed in consecutive STEMI patients admitted at the Pitié-Salpêtrière Center (Paris, France), with two separate measurements, one performed on the arterial blood on arrival in the cath-lab for primary PCI and the second from venous puncture after a fasting period during hospitalization. A possible HeFH was defined by the Dutch Lipid Clinic Score from the medical history of patients and LDL-cholesterol level. A score ≥3 defined a possible HeFH. Mortality was assessed at two-year follow-up.

**RESULTS:**
Among 1973 consecutive MI patients, the diagnosis of possible HeFH (DLCS ≥3) was reached in 21.4% (n=423) of patients and probable/definite HeFH (DLCS > 5) in 2.3% (n=46) of patients.

**CONCLUSION:** HeFH is frequent in STEMI patients when screened with the Dutch Lipid Clinic Score and allows the characterization of a potentially higher risk population. The better prognosis of these patients may be related to their younger age and more aggressive treatment for dyslipidemia.