Does the Efficacy of the Low-Molecular Weight Heparin Enoxaparin over Unfractionated Heparin in Patients under ST-Elevation Myocardial Infarction? A Meta-Analysis of 27,000 Patients


Background: We sought to determine whether the increased efficacy demonstrated in several trials with the low-molecular weight heparin, enoxaparin (ENOX), over unfractionated heparin (UFH) is advantageous when implementing the optimal profile of these two agents in patients with ST-elevation myocardial infarction (STEMI). Methods: We performed a meta-analysis of randomized trials of Enoxaparin vs. UFH in STEMI patients treated with intravenous tissue plasminogen activator (t-PA) or primary percutaneous coronary intervention (PCI). Results: A total of 27,000 patients were included in 10 randomized trials. The primary composite endpoint of death, MI, or major bleeding was significantly lower with Enoxaparin (14.0% vs. 17.1%, P=0.04), and in-hospital mortality was significantly lower with Enoxaparin (2.3% vs. 2.9%, P=0.03). The results were similar in patients receiving t-PA or PCI. Conclusion: Enoxaparin is associated with a lower rate of death, MI, or major bleeding, and a lower rate of in-hospital mortality in patients with STEMI treated with t-PA or PCI.

Abstracts From Scientific Sessions 2006 (II-56)

Recurrence of Coronary Spasm after Withdrawal of Ca-antagonists - Suppression by an HMG Co-A Reductase Inhibitor

Yu Nakazawa, Hideki Yamasaki, Etsuko Harada, Tatsuo Hiro, Tsumura Pharmaceutical, Kumamoto City, Japan, Masaharu Maeda, Kotobuki Yoshinori, Dept of Cardiovascular Medicine, Graduate School of Medical Sciences, Kumamoto Univ., Kumamoto City, Japan.

Background: We had established that Ca-antagonists are the first line medications for the treatment of coronary spasm. However, Ca-antagonists do not necessarily totally succeed in coronary spasm. A study of whether Ca-antagonists is still needed in patients with coronary spasm is required. We had also been shown to improve the coronary spasm in patients taking Ca-antagonists. We confirmed that the Ca-antagonists also suppress coronary spasm. (Purpose) This study was designed to determine whether coronary spasm occurs after withdrawal of Ca-antagonists and whether calcium has any protective effect or therapeutic effects on coronary spasm recurrence. (Methods) Fifty-two patients were enrolled in this study. ECG was recorded for 18 patients, followed by coronary spasm was induced by coronary infusion of Acetylcholine and was randomly divided to either the placebo group (25 patients) or the study group (27 patients). ECG was then recorded for 18 patients, followed by coronary spasm was induced by coronary infusion of Acetylcholine and was randomly divided to either the placebo group (25 patients) or the study group (27 patients). Coronary spasm was induced by coronary infusion of Acetylcholine. A study of 7 days after the withdrawal of Ca-antagonists were conducted as a control. The difference of coronary spasm between the two groups was analyzed with Student's t-test.

Rate of Statins in Prevention of Atrial Fibrillation

Malcolm Zehir, Gethan Ramsay, Michael A. Gaggin, Jr., Univ of Pittsburgh, Pittsburgh, PA, Chestertown, MD, AstraZeneca, Patient Administration Healthcare System, Pittsburgh, PA.

Background: We have previously shown that statins reduce atrial fibrillation. However, we have no data on whether statins reduce atrial fibrillation in patients with coronary artery disease (CAD) or heart failure (HF). We therefore conducted a study to determine whether statins reduce atrial fibrillation in patients with CAD or HF.

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