Impact of low molecular weight heparin on bleeding complications and one-year survival in elderly patients with acute myocardial infarction. The FAST-MI registry


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**Background:** There are limited data on the safety and efficacy of low molecular weight heparin (LMWH) in elderly patients with ACS.

**Aim:** To compare LMWH with unfractioned heparin (UFH) in the management of acute MI in elderly patients.

**Methods:** FAST-MI is a nationwide registry carried out over a 1-month period in 2005, including consecutive patients with AMI admitted to ICUs < 48 hours from symptom onset in 223 participating centers. We assessed the impact of LMWH on bleeding, the need for blood transfusion and 12-month survival in elderly patients (75 years of age or older).

**Results:** 968 patients treated with heparin were included (Mean age 82 ± 5 years; 51% women; 42.5% STEMI). Major bleeding (2.4% vs 6.1%, P=0.004) and blood transfusions (4.6% vs 9.7%, P=0.002) were significantly less important with LMWH compared with the UFH, a difference that persisted after multivariate adjustment (OR=0.41, 95% confidence interval: 0.20-0.83, and OR=0.49, 95% confidence interval: 0.28-0.85, respectively).

One-year survival and stroke and reinfarction-free survival were also significantly higher with LMWH compared with UFH (OR=0.66, 95% confidence interval: 0.50-0.85 and OR=0.71, 95% confidence interval: 0.56-0.91, respectively). In two cohorts of patients matched on a propensity score for getting LMWH and with similar baseline characteristics, major bleeding, transfusion and one-year mortality were also significantly lower in patients receiving LMWH.

**Conclusion:** The present data show that in elderly patients admitted for AMI, use of LMWH is associated with less bleeding, less need for transfusion, and higher survival, compared with the use of UFH.