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# Acute Coronary Syndromes

## CARDIOPROTECTIVE ROLE OF ZOFENOPRIL IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION: THE EXPERIENCE OF THE SMILE PROGRAM

Poster Contributions
Hall C
Sunday, March 30, 2014, 3:45 p.m.-4:30 p.m.

Session Title: Clinical Perspectives on Management of Non-ST-Segment Elevation Acute Coronary Syndrome
Abstract Category: 3. Acute Coronary Syndromes: Therapy
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Authors: *Claudio Borghi, Ettore Ambrosioni, Stefano Omboni, Giorgio Reggiardo, Dario Zava, Stefano Bacchelli, Daniela Degli Esposti, SMILE Working Project, Unit of Internal Medicine, Policlinico S. Orsola, University of Bologna, Bologna, Italy*

**Background:** early administration of zofenopril following acute myocardial infarction (AMI) proved to be prognostically beneficial in the SMILE (Survival of Myocardial Infarction Long-term Evaluation) studies. In the present analysis we evaluated the cumulative efficacy of zofenopril on cardiovascular (CV) morbidity and mortality, and compared it with that of placebo and other angiotensin-converting enzyme inhibitors (ACEIs), by a pooled analysis of individual data from the four randomized, double-blind, parallel-group, prospective, SMILE Studies.

**Methods:** 3,630 AMI patients (mean age 62±11 years, 75% males) were enrolled in the SMILE studies: 1,808 (50%) treated with zofenopril 30-60 mg/day (all four studies), 951 (26%) with placebo (SMILE 1 and 3), 520 (14%) with lisinopril 5-10 mg/day (SMILE 2) and 351 (10%) with ramipril 10 mg/day (SMILE 4). Treatment was continued for 6 to 48 weeks. For the purpose of this pooled analysis the primary study endpoint was set to 1-year combined occurrence of death or hospitalization for CV causes.

**Results:** the rate of major CV outcomes was significantly reduced with zofenopril by 40% vs. placebo (OR: 0.60, 95% CI: 0.49-0.74; p=0.0001) and by 23% vs. the other ACEIs (risk reduction: 22%; OR: 0.77, 0.63-0.95; p=0.015). The risk reduction observed under treatment with the other ACEIs was barely statistically significant (-22%; OR: 0.78, 0.60-1.02; p=0.072). The benefit of early administration of zofenopril on prevention of CV morbidity and mortality was already evident after the first 6 weeks of treatment with a 28% risk reduction of CV events (OR: 0.72, 0.54-0.97; p=0.029), while this was not the case for the other ACEIs (risk reduction: 19%; OR: 0.81, 0.57-1.17; p=0.262). In this early phase of treatment zofenopril showed a non-statistically significant trend in morbidity and mortality reduction vs. the other ACEIs (-11%; OR: 0.89, 0.69-1.15; p=0.372).

**Conclusions:** the present pooled analysis of data from the SMILE Program confirms the favorable effects of zofenopril treatment in post-AMI patients and its long-term benefit in terms of prevention of CV morbidity and mortality, not only compared to placebo but also to others ACEIs, such as lisinopril and ramipril.