

Benefit of Aspirin and Statin in Low Risk Hypertension: NHIS Data Analysis

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Abstract

INTRODUCTION:

To determine whether the addition of aspirin to a statin regimen is beneficial in reducing cardiovascular mortality, we analyzed data for uncomplicated hypertensive patients included in the Korea National Health Insurance sample cohort.

METHOD:

Among the 758 433 eligible participants aged 20 years or older in 2005, 31 115 participants were selected and divided into four groups: no-treatment group (N = 19 628); aspirin alone group (N = 4814); statins alone group (N = 4717); and combined treatment group (N = 1956). The mean follow-up duration was 94 ± 13 months. The primary outcome of the study was all-cause and cardiovascular mortality from 2007 to 2013.

RESULTS:

Treatment with aspirin alone [hazard ratio (HR), 0.62; 95% confidence interval (CI), 0.55-0.70; P < 0.001), treatment with statins alone (HR, 0.48; 95% CI, 0.41-0.57; P < 0.001), and combined treatment (HR, 0.43; 95% CI, 0.34-0.55; P < 0.001) were independently associated with reductions in all-cause mortality. Treatment with aspirin alone (HR, 0.66; 95% CI, 0.53-0.84; P < 0.001), treatment with statins alone (HR, 0.46; 95% CI, 0.33-0.64; P < 0.001), and combined treatment (HR, 0.50; 95% CI, 0.31-0.79; P = 0.003) were also independently associated with reductions in cardiovascular mortality. The addition of aspirin to statins was not associated with an additive benefit in reducing total mortality or cardiovascular mortality.

CONCLUSION:

Primary prevention with aspirin and/or statins is beneficial in reducing both all-cause and cardiovascular mortality in uncomplicated hypertensive participants. Nevertheless, as aspirin administration is associated with an increased risk of major bleeding, care must be taken to assess the risk/benefit of using aspirin in primary prevention.