

ATHEROSCLEROSIS

Low-dose aspirin failed to improve cardiovascular outcomes

Low-dose aspirin therapy can reduce severe adverse vascular events.

Investigators in the Japanese Primary Prevention Project sought to determine whether low-dose aspirin therapy can reduce the incidence of atherosclerotic events in Japanese patients with multiple risk factors for atherosclerosis.

The investigators enrolled 14,464 patients aged 60–85 years from 1,007 clinics in Japan who presented with hypertension, dyslipidaemia, or diabetes mellitus. Patients were randomly assigned to receive either aspirin (100 mg, once daily) or no aspirin, in addition to ongoing medication. The primary end point of the study was a composite of death from cardiovascular causes (myocardial infarction, stroke, and other cardiovascular causes), nonfatal ischaemic or haemorrhagic stroke, and nonfatal myocardial infarction.

Surprisingly, no differences between the number of fatal events were observed, and

the 5-year cumulative primary outcome event rate was similar between the aspirin and the no aspirin groups (2.8% vs 3.0%; HR 0.94, $P=0.54$). Consequently, the study was terminated prematurely after a median follow-up of 5 years on the basis of probable futility.

In an accompanying editorial, J. Michael Gaziano and Philip Greenland highlights that while “aspirin is indicated for patients at high short-term risk due to an acute vascular event, ... patients at very low risk of vascular events should not take aspirin for prevention of vascular events, even at low dose.”

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Original articles Ikeda, Y. *et al.* Low-dose aspirin for primary prevention of cardiovascular events in Japanese patients 60 years or older with atherosclerotic risk factors: A randomized clinical trial. *JAMA* doi:10.1001/jama.2014.15690 | Gaziano, J. M. & Greenland, P. When should aspirin be used for prevention of cardiovascular events. *JAMA* doi:10.1001/jama.2014.16047