Circulation

Colchicine in Patients with Acute Coronary Syndrome:

The Australian COPS Randomized Clinical Trial

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Abstract

Background:

Inflammation plays a crucial role in clinical manifestations and complications of acute coronary syndromes (ACS). Colchicine, a commonly used treatment for gout, has recently emerged as a novel therapeutic option in cardiovascular medicine owing to its anti-inflammatory properties. We sought to determine the potential usefulness of colchicine treatment in patients with ACS.

Methods:

This was a multicenter, randomized, double-blind, placebo-controlled trial involving 17 hospitals in Australia that provide acute cardiac care service. Eligible participants were adults (18-85 years) who presented with ACS and had evidence of coronary artery disease on coronary angiography managed with either percutaneous coronary intervention or medical therapy. Patients were assigned to receive either colchicine (0.5 mg twice daily for the first month, then 0.5 mg daily for 11 months) or placebo, in addition to standard secondary prevention pharmacotherapy, and were followed up for a minimum of 12 months. The primary outcome was a composite of all-cause mortality, ACS, ischemia-driven (unplanned) urgent revascularization, and noncardioembolic ischemic stroke in a time to event analysis.

Results:

A total of 795 patients were recruited between December 2015 and September 2018 (mean age, 59.8±10.3 years; 21% female), with 396 assigned to the colchicine group and 399 to the placebo group. Over the 12-month follow-up, there were 24 events in the colchicine group compared with 38 events in the placebo group (P=0.09, log-rank). There was a higher rate of total death (8 versus 1; P=0.017, log-rank) and, in particular, noncardiovascular death in the colchicine group (5 versus 0; P=0.024, log-rank). The rates of reported adverse effects were not different (colchicine 23.0% versus placebo 24.3%), and they were predominantly gastrointestinal symptoms (colchicine, 23.0% versus placebo, 20.8%).

Conclusions:

The addition of colchicine to standard medical therapy did not significantly affect cardiovascular outcomes at 12 months in patients with ACS and was associated with a higher rate of mortality.

Registration: URL: https://www.anzctr.org.au; Unique identifier: ACTRN12615000861550.