Natriuretic Peptide: A Probable Culprit in Prevention of Primary Cardiovascular Diseases Using β-Blockers

To the Editor:

This letter refers to "The Value of N-Terminal Pro-B-Type Natriuretic Peptide in Determining Antihypertensive Benefit: Observations From the Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT)

The 2014 evidence-based guideline for the management of high blood pressure in adults from the Eighth Joint National Committee (JNC 8) did not recommend β-blockers for the initial treatment of hypertension, because a randomized controlled trial failed to find a reduced incidence of cardiovascular diseases in patients who received treatment based on β-blockers than angiotensin-converting enzyme inhibitors. However, the reason why β-blockers gain fewer reduction of cardiovascular disease incidence remains unclear. Welsh et al. found increased N-terminal pro-B-type natriuretic peptide after treatment with a β-blocker atenolol but reduced N-terminal pro-B-type natriuretic peptide after treatment with amlodipine, a calcium channel blocker. It has also been reported that N-terminal pro-B-type natriuretic peptide can be attenuated by treatment with angiotensin receptor blockers and angiotensin-converting enzyme inhibitors. Because N-terminal pro-B-type natriuretic peptide is a risk factor for cardiovascular diseases, these findings indicate that natriuretic peptide may be the main culprit inducing a poor benefit from β-blockers in preventing cardiovascular disease events.

Disclosures

None.

Hao Peng
Yan Liu
Department of Epidemiology
School of Public Health
Medical College of Soochow University
Suzhou, China

Natriuretic Peptide: A Probable Culprit in Prevention of Primary Cardiovascular Diseases Using β-Blockers
Hao Peng and Yan Liu

Hypertension. 2014;63:e87; originally published online February 17, 2014;
doi: 10.1161/HYPERTENSIONAHA.113.03095

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://hyper.ahajournals.org/content/63/4/e87

Permissions: Requests for permissions to reproduce figures, tables, or portions of articles originally published in Hypertension can be obtained via RightsLink, a service of the Copyright Clearance Center, not the Editorial Office. Once the online version of the published article for which permission is being requested is located, click Request Permissions in the middle column of the Web page under Services. Further information about this process is available in the Permissions and Rights Question and Answer document.

Reprints: Information about reprints can be found online at:
http://www.lww.com/reprints

Subscriptions: Information about subscribing to Hypertension is online at:
http://hyper.ahajournals.org//subscriptions/