The Association Between Orthostatic Hypotension and Nocturnal Blood Pressure May Explain the Risk for Heart Failure

To the Editor:

We read with interest the article of Jones et al\(^1\) suggesting that orthostatic hypotension (OH) predicts the development of heart failure (HF) among middle-aged individuals. The authors speculated that OH preceding HF may be a marker of early subclinical atherosclerosis that is facilitated by hypertension and potentially by other risk factors and may contribute to HF development. We suggest another explanation for the association between OH and incident HF. We showed recently that orthostatic blood pressure changes are related to nocturnal BP changes and that OH may be a marker of nondipping or a reverse-dipping pattern of diurnal blood pressure.\(^2\) In our study, 95% of those with OH had a nondipping or reverse dipping pattern on 24-hour ambulatory blood pressure monitoring.\(^2\) It is well known that a nondipping pattern is associated with increased cardiovascular morbidity and mortality.\(^3,4\) Unfortunately, subjects in the Atherosclerosis Risk in Communities Study did not have 24-hour ambulatory blood pressure monitoring to identify how many of those with OH had a nondipping pattern or nocturnal hypertension. The possible nondipping pattern in hypertensive patients with OH may also explain why eliminating hypertensive patients from the analysis attenuated the association between OH and incident HF. We assume that many subjects with OH in the Atherosclerosis Risk in Communities Study had in fact nocturnal hypertension, which could explain the risk of incident HF. We, therefore, suggest performing 24-hour ambulatory blood pressure monitoring in each subject with OH.

Disclosures

None.

Ehud Grossman
Shilo Voichanski
Chagai Grossman
Avshalom Leibowitz
Department of Internal Medicine D and Hypertension Unit
Chaim Sheba Medical Center
Tel-Hashomer, Israel
Affiliated with Sackler Faculty of Medicine
Tel Aviv University
Tel Aviv, Israel


\(\text{Hypertension}, 2012;60:e1.\)

© 2012 American Heart Association, Inc.

*Hypertension* is available at http://hyper.ahajournals.org

DOI: 10.1161/HYPERTENSIONAHA.112.197152
The Association Between Orthostatic Hypotension and Nocturnal Blood Pressure May Explain the Risk for Heart Failure

Ehud Grossman, Shilo Voichanski, Chagai Grossman and Avshalom Leibowitz

Hypertension. 2012;60:e1; originally published online May 29, 2012;
doi: 10.1161/HYPERTENSIONAHA.112.197152

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/60/1/e1

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/