Letter by Lin et al Regarding Article, “Risk of Stroke in Chronic Heart Failure Patients Without Atrial Fibrillation: Analysis of the Controlled Rosuvastatin in Multinational Trial Heart Failure (CORONA) and the Gruppo Italiano per lo Studio della Sopravvivenza nell’Insufficienza Cardiaca-Heart Failure (GISSI-HF) Trials.”

To the Editor:

We read with interest the work by Abdul-Rahim et al.,1 which reported that body mass index is inversely associated with incident ischemic stroke in chronic heart failure (HF) patients without atrial fibrillation (AF). The authors reasoned their finding by the obesity paradox phenomenon which has been well recognized in HF patients in previous studies.2 However, to our best knowledge, the obesity paradox was mainly described for mortality in patients with established cardiovascular disease such as HF or AF, but as for ischemic stroke, their finding was novel.

According to a few available studies, overweight or obesity, defined by body mass index \( \geq 25 \text{ kg/m}^2 \), was associated with higher risk of ischemic stroke or thromboembolism events as compared with normal weight (18.5–25 kg/m\(^2\)) in patients with AF.3,4 Therefore, whether the effect of HF may alter the positive association between body mass index and ischemic stroke in patients with AF needs further investigation. In addition, the obesity paradox for ischemic stroke was absent in patients without AF in the multivariable model additionally adjusted for plasma N-terminal pro B-type natriuretic peptide levels. This finding could be explained partially by that when clinical trials enrolled different stage of HF patients, lean patients may stand for in an advanced stage of HF after exhausting total body fat gradually from initial obesity to cardiac cachexia.5 In advanced HF stage, intracardiac blood clot would be produced easily in a hypercoagulant status which leads to a higher risk of ischemic stroke as well.

In conclusion, the association between body mass index and incident ischemic stroke in the remaining 3531 patients with AF in the present study is worth investigation. Moreover, whether lean patients have experienced longer periods of HF and had more severe symptoms than obese counterparts among patients without AF at the entry of present study needs to be clarified.

Disclosures

None.

References


Gen-Min Lin, MD, MPH
Department of Medicine
Hualien-Armed Forces General Hospital
Hualien, Taiwan

Yuan Hung, MD
Division of Cardiology
Department of Internal Medicine
Tri-Service General Hospital
Taipei, Taiwan

Yi-Hwei Li, PhD
Department of Public Health
Tzu-Chi University
Hualien, Taiwan
Letter by Lin et al Regarding Article, "Risk of Stroke in Chronic Heart Failure Patients Without Atrial Fibrillation: Analysis of the Controlled Rosuvastatin in Multinational Trial Heart Failure (CORONA) and the Gruppo Italiano per lo Studio della Sopravvivenza nell'Insufficienza Cardiaca-Heart Failure (GISSI-HF) Trials."

Gen-Min Lin, Yuan Hung and Yi-Hwei Li

_Circulation._ 2015;132:e357
doi: 10.1161/CIRCULATIONAHA.115.017762
_Circulation_ is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
Copyright © 2015 American Heart Association, Inc. All rights reserved.
Print ISSN: 0009-7322. Online ISSN: 1524-4539

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://circ.ahajournals.org/content/132/22/e357

Permissions: Requests for permissions to reproduce figures, tables, or portions of articles originally published in _Circulation_ 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 _Circulation_ is online at:
http://circ.ahajournals.org//subscriptions/