To the Editor:

We read with interest the work by Abdul-Rahim et al., 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. 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 ≥25 kg/m², was associated with higher risk of ischemic stroke or thromboembolism events as compared with normal weight (18.5–25 kg/m²) in patients with AF. 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 an advanced stage of HF after exhausting total body fat gradually from initial obesity to cardiac cachexia. 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

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."
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Circulation. 2015;132:e357
doi: 10.1161/CIRCULATIONAHA.115.017762

Circulation is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
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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

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