Reviewer’s report

Title: Cardiac ventricular dimensions predict cognitive decline and cerebral blood flow abnormalities in aging men.

Version: 2 Date: 22 April 2013

Reviewer: Andreana Haley

Reviewer’s report:

The authors were relatively responsive to critiques related to clarification, e.g., defining FS earlier in the introduction, clarifying what data were available on what participants at what time points, and providing baseline data on both participants who were retained in the sample and those who dropped out. An attempt was made to improve the statistical analyses by replacing some of the correlational analyses with regressions and including covariates, though section Statistics on page 6, simply states that results were "adjusted for education and appropriate vascular risk factors." It is unclear what those were, or if the longitudinal analyses were adjusted in any way for baseline cognitive performance. Most importantly, I am still not convinced that those rich longitudinal data are being dealt with in the best possible way. While I really appreciate the topic and the uniquely long longitudinal follow-up, I would still prefer that the paper is reviewed by a statistician who can ensure that models specifically designed to deal with non-random drop out are appropriately considered (Muthen/Roy?).

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.