Reviewer's report

Title: Echocardiographic Evaluation of Thalassemia Intermedia Patients in Duhok, Iraq

Version: 5 Date: 3 November 2014

Reviewer: Douglas Curran-Everett

Reviewer's report:

General Comment

I have reviewed this paper from the perspective of the statistical analyses. Although I find the topic of interest and importance, I do have some questions about the statistical analysis.

Major Compulsory Revisions

1. Methods, dichotomizing TRV and normalizing cardiac volumes and dimensions, page 4. The problems normalizing to some denominator such as body surface area are well-documented. See Curran-Everett D. Explorations in statistics: the analysis of ratios and normalized data. Adv Physiol Educ 37: 213–219, 2013 http://advan.physiology.org/content/37/3/213.full for a summary. Moreover, I am not clear on why TRV was dichotomized rather than treating it as a continuous variable. The analysis of a continuous variable has more statistical power than does a discrete variable. Why not use analysis of covariance for the analysis?

2. Results. Scatterplots are necessary to assess the association of a predictor variable with TRV.

Minor Essential Revisions

1. Abstract, Results, Tables. The preferred format for reporting SD is 19.6 (SD 7.5) years. Because a SD is a single, positive number, the +/- is superfluous.

2. Results and Tables, P values. P values greater than 0.01 can be rounded to the nearest 0.01.

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

I declare that I have no competing interests.