Letter to the Editor

Statistical suggestions for long-term outcomes of non-ischemic dilated cardiomyopathy patients

Dear Editor,

I read with great interest the recent article entitled “Long-term outcomes of non-ischemic dilated cardiomyopathy patients with left ventricular ejection fraction ≤ 19% medical therapy” by Agstam et al in your distinguished journal. The authors successfully examined patients with non-ischemic dilated cardiomyopathy (DCM) with very low left ventricle ejection fraction (LVEF ≤ 19%) on low-cost medical therapy. Nevertheless, I have some statistical comments regarding this paper.

It is understood from the part of the statistical analysis in their well-designed paper, independent t-test was applied to comparisons in 2 groups. However, in the same part, information has been given about non-normally distributed variables too. Thus, the Mann–Whitney test, a nonparametric version of the independent t-test, should have been used in some comparisons.2 Besides these, in the statistical analysis section, the authors also investigated predictors of mortality by binomial logistic regression with enter method. However, none of them was found statistically significant. The most important reason for this result could be the using enter method with correlated predictors such as heart failure hospitalization, baseline NYHA functional class, etc. Because one of the assumptions of the logistic regression model is multicollinearity. Multicollinearity means there is no correlation among the predictors and exist of it can cause inaccurate estimates.3 If this assumption would not check and used enter method instead of forward or backward variable selection methods, it can be encountered such a result.4 Therefore, for this result, my recommendation is the evaluation of assumptions of the logistic regression model.

Author note

“Statistical suggestions for long-term outcomes of non-ischemic dilated cardiomyopathy patients” entitled paper is a letter to editor for “Long-term outcomes of non-ischemic dilated cardiomyopathy patients with left ventricular ejection fraction ≤ 19% medical therapy” entitled manuscript that was published in Volume 72, Issue 6 by Indian Heart Journal.

References


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