

# Letter to the Editor

## The influence of angiotensin converting enzyme-2 gene polymorphisms: what does it predict in patients with diabetes mellitus and coronary heart disease?

Dear Editor,

We read the article titled "The influence of angiotensin converting enzyme-2 gene polymorphisms on type 2 diabetes mellitus and coronary heart disease" by Chaoxin et al<sup>1</sup> with great interest. However, we would like to make a few suggestions regarding the analysis and presentation of data.

As it is known, the types of variables are nominal, ordinal, and numeric. If the variables are numeric, they should be defined whether it's compatible with normal distribution or not<sup>2,3</sup>. Normal distribution may control with both visual tests and functional tests. Visual tests are graphical techniques including Q-Q plot, P-P plot, and histogram. Functional tests include statistical tests (Kolmogorov-Smirnov and Shapiro-Wilk), skewness and kurtosis<sup>2</sup>. The authors did not report any normalization tests in the paper. Furthermore, in Table II, the standard deviation (SD) of some parameters, for example urine microprotein and E/A ratio, are so large that it renders interpretation of data almost impossible. Such a large SD would bring the normal distribution of the data into question, which in turn, would alter the selection of statistical tests in favor of non-parametric tests like Wilcoxon Signed Rank test. Also, instead of SD, we recommend the authors use of standard of error of mean; as the prior shows how widely scattered some measurements and the latter focuses on indicating the uncertainty around the estimate of the mean measurement, and is also more useful in determining a confidence interval (CI).

In addition, to better interpret the differences between groups, presentation of the p values of every parameter in a separate column would be very helpful.

We would like to conclude by congratulating Chaoxin et al<sup>1</sup> on their study and suggest that extension of this study to different populations would prove useful in finally establishing the place of angiotensin converting enzyme-2 (ACE-2) polymorphisms in this cohort of patients.

### Conflict of Interest

The Authors declare that they have no conflict of interests.

### References

- 1) CHAOXIN J, DAILI S, YANXIN H, RUWEI G, CHENLONG W, YAOBIN T. The influence of angiotensin-converting enzyme 2 gene polymorphisms on type 2 diabetes mellitus and coronary heart disease. *Eur Rev Med Pharmacol Sci* 2013; 17: 2654-2659.
- 2) HAYRAN M, HAYRAN M, EDITORS. *Saglik Arastirmaları için Temel Istatistik*. Ankara: Art Ofset, 2011.
- 3) NEAL DK. Goodness of fit tests for normality. *Mathematica Educ Res* 1996; 5: 23-30.

*E.C. Roach, B. Bagan<sup>1</sup>*

Department of Pathobiology, Cleveland Clinic, Cleveland, OH, USA

<sup>1</sup>Department of Cardiovascular Medicine, Cleveland Clinic, Cleveland, OH, USA