

Letter to the Editor

## Letter to editor about the article: "Association between the interleukin-6-174 G/C polymorphism and risk of ischemic stroke: a meta-analysis", published in *Genet*. *Mol. Res.* 14 (4): 13076-13083 (2015)

D.M. Huang and Y.B. Li

Department of Pediatric Surgery, West China Hospital, Sichuan University Chengdu, Sichuan, China

Corresponding author: D.M. Huang E-mail: gracehdm@163.com

Genet. Mol. Res. 15 (4): gmr15049400 Received October 4, 2016 Accepted October 4, 2016 Published October 17, 2016 DOI http://dx.doi.org/10.4238/gmr15049400

Copyright © 2016 The Authors. This is an open-access article distributed under the terms of the Creative Commons Attribution ShareAlike (CC BY-SA) 4.0 License.

Dear Editor,

We have read a recent report by Jin et al. (2015) with great interest. Basing on accessible databases and the inconsistent results in previous studies, the authors conducted a meta-analysis to better clarify the association of the *IL6*-174 G/C polymorphism with ischemic stroke. The aim and effort of the author are praiseworthy. Nevertheless, the final conclusion of this article need to be further evaluated.

The eligible studies in this meta-analysis were searched by November 2014 without language restrictions in PubMed and Medline. However, the information extraction in this

Genetics and Molecular Research 15 (4): gmr15049400

article was not comprehensive. On the one hand, some available studies, especially from 2011 to 2014 (Balcerzyk et al., 2012; Titov et al., 2012; Chakraborty et al., 2013; Yang et al., 2014), were not retrieved. These omitted studies mostly hold the view that the *IL6*-174G/C polymorphism was responsible for ischemic stroke susceptibility. On the other hand, their databases for searching, besides PubMed and Embase, may well contain information in the CNKI and Medline. It can enlarge the sample size and attributes to make a more vigorous and more accurate conclusion.

What's more, there are overlapped data in this meta-analysis. The duplication of cases and controls in Revilla et al. (2002) and Chamorro et al. (2005) was ignored by the authors. Both worked in the same team of Service of Neurology, Hospital Clinic Universitari in Spain. The population utilized in their studies was all enrolled in Stoke Units. The only distinction was the sample size. Subjects in the study of Revilla et al. (2002) were recruited between September 1998 and February 2001, while those of Chamorro et al. (2005) were recruited by 2005. The duplicated information will affect the final statistics analysis and may lead to an antipodal result. Hence, we suggest to employing the study of bigger sample size in this condition. Thus, the data in Chamorro et al. (2005) should be incorporated into this metaanalysis and the comprehensively and accurately detailed data will make the result of this meta-analysis more meaningful.

## REFERENCES

- Balcerzyk A, Nowak M, Kopyta I, Emich-Widera E, et al. (2012). Impact of the -174G/C interleukin-6 (IL-6) gene polymorphism on the risk of paediatric ischemic stroke, its symptoms and outcome. *Folia Neuropathol.* 50: 147-151.
- Chakraborty B, Chowdhury D, Vishnoi G, Goswami B, et al. (2013). Interleukin-6 gene -174 G/C promoter polymorphism predicts severity and outcome in acute ischemic stroke patients from north India. J. Stroke Cerebrovasc. Dis. 22: 683-689. http://dx.doi.org/10.1016/j.jstrokecerebrovasdis.2012.02.007
- Chamorro A, Revilla M, Obach V, Vargas M, et al. (2005). The -174G/C polymorphism of the interleukin 6 gene is a hallmark of lacunar stroke and not other ischemic stroke phenotypes. *Cerebrovasc. Dis.* 19: 91-95. <u>http://dx.doi.org/10.1159/000082785</u>
- Jin XF, Wang DL, Zhou Y and Xiong H (2015). Association between the interleukin-6-174 G/C polymorphism and risk of ischemic stroke: a meta-analysis. *Genet. Mol. Res.* 14: 13076-13083. <u>http://dx.doi.org/10.4238/2015.October.26.3</u>
- Revilla M, Obach V, Cervera A, Dávalos A, et al. (2002). A -174G/C polymorphism of the interleukin-6 gene in patients with lacunar infarction. *Neurosci. Lett.* 324: 29-32. <u>http://dx.doi.org/10.1016/S0304-3940(02)00169-6</u>
- Titov B, Barsova R, Martynov MY, Nikonova A, et al. (2012). Polymorphic variants of the genes encoding intrleukin-6 and fibrinogen: Risk for ischemic stroke and fibrinogen levels. *Mol. Biol.* 46: 85-93.
- Yang X, Feng L, Li C and Li Y (2014). Association of IL-6-174G > C and -572C > G polymorphisms with risk of young ischemic stroke patients. *Gene* 539: 258-262.

Genetics and Molecular Research 15 (4): gmr15049400