Letter to the Editor

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IL-6 Variants in Ischemic Stroke

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Dear Editor,

I have read with interest a recent report by Kumar et al. [1] on the putative role of interleukin-6 (IL-6) in ischemic stroke. In their report, the authors refute an association of 2 promoter variants on the phenotype under study based on earlier case–control investigations. Data from this article, however, warrant a reappraisal of existing findings.

On one hand, numerous investigations were not retrieved. A quick search using the same databases as employed by the authors unveiled additional studies both for –572G/C [2, 3] and for –174G/C [4–6] and around 10,000 additional genotypes that had been available at the time of the August 30, 2014, data freeze. I am not even counting the genome-wide association studies that were published from 2007 onward [7]. On the other hand, the results cited in the article appear to have been muddled. Thus, a study by Flex et al. [8] refers to an entirely different phenotype of peripheral artery occlusive disease (only 22 patients actually also had a history of stroke). Assuming that the authors had intended to refer to another study by the same author [9], we face the obvious overlap of cases and controls with a further investigation [10]. Similarly, overlap of cases and controls was ignored for the studies by Revilla et al. [11] and Chamorro et al. [12]. The number of cases and controls pooled is thus inflated. Another issue that has been overlooked is the sharp discrepancy in –174C allele frequencies in the studies by Yamada et al. [13] and Tong et al. [14]. No alleles have so far been identified with frequencies ranging from 0.22 to 0.76 in non-isolated Asian (or Caucasian) populations. The only reasonable explanation for this discordant observation is a muddling of major and minor alleles at some point, and therefore, the outlier study should have been dropped from the meta-analysis. On the whole, the present quantitative review is best reconducted to eliminate the above sources of bias and to provide an accurate estimate of IL-6 impact on the susceptibilty to ischemic stroke.

Disclosure Statement

None declared.

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