Hyperhomocyst(e)inemia Is a Risk Factor for Arterial Endothelial Dysfunction in Humans

To the Editor:

We have previously published an article in Circulation demonstrating that hyperhomocyst(e)inemia is associated with endothelial dysfunction in middle aged Chinese,1 in agreement with the findings of Tawakol et al in older white subjects.2 We now write to correct an important error in the reporting of our biochemical results.

On repeated measurement of fasting total plasma homocyst(e)ine (tHcy) levels in our subject group, we have been unable to reproduce the very high homocyst(e)ine levels previously reported. We believe that this is related to problems with sample preparation and analyses by high-performance liquid chromatography, where measurement of tHcy level and all sulfated groups may have accounted for a significant overestimation of the true level in a proportion of subjects, particularly those with high homocyst(e)ine. We have now recalled all the subjects and remeasured tHcy in those involved in our previous report, using more appropriate sample preparation and analyses by an enzymatic immunoassay method. The “high tHcy” group had levels of 10.5±3.0 μmol/L, and the “low tHcy” group had levels of 8.5±1.1 μmol/L (P<0.05). Therefore, although the absolute values previously reported appear to have been overestimated, there remains a significant difference between groups, and the article’s major finding concerning the relationship between tHcy and endothelial function is supported in our study and other studies. Because our study is one of the few reports of tHcy levels in an Asian population, we thought it important to bring this to your attention.

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