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The association of cystathionine β synthase (CBS) T833C polymorphism and the risk of stroke: a meta-analysis.

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Abstract

As results from published studies on the association of Cystathionine β Synthase (CBS) T833C genetic polymorphism with the risk of stroke are inconsistent, we performed a meta-analysis to summarize the possible association. Eligible studies published were searched for in PubMed, Elsevier Science Direct, Chinese National Knowledge Infrastructure (CNKI), Chinese Biomedical Literature Database (CBM), and the Chinese database, Wanfang. Crude odds ratios (ORs) with 95% confidence intervals (CIs) were assessed for the association using fixed- or random-effect model. We identified 10 case-control studies including 2247 cases and 1813 controls for the present meta-analysis. Significant associations between CBS T833C genetic polymorphism and risk of stroke were observed in most genetic models (OR=1.57, 95% CI=1.02-2.41, p=0.039 for TC+CC vs. TT; OR=1.79, 95% CI=1.14-2.82, p=0.012 for CC vs. TT; OR=1.56, 95% CI=1.01-2.40, p=0.044 for TC vs. TT). Moreover, in the subgroup analysis based on ethnicity, significant associations were observed in most genetic models in Chinese but not in Caucasian. This meta-analysis provided evidence that CBS T833C genetic polymorphism was associated with increased risk of stroke, and the C allele probably acts as an important stroke risk factor.

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