



MTHFR A1298C polymorphism and ovarian cancer risk: a meta-analysis

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ABSTRACT. Numerous studies have evaluated the association between the MTHFR A1298C polymorphism and ovarian cancer risk. However, the specific association is still controversial. Therefore, we performed the present meta-analysis. A systematic literature search of PubMed and Embase databases was undertaken in August 2014, and the reference lists of articles were retrieved. ORs with their 95%CI were calculated to evaluate the strength of the association. Meta-analysis was performed using the STATA version 12.0 software package and publication bias was investigated by Begg's funnel plot. Five case-control studies from three publications (with 7026 subjects) on the relationship between the MTHFR A1298C polymorphism and ovarian cancer were analyzed by meta-analysis. Overall, no significant variation in ovarian cancer risk was detected in any of the genetic models (AA vs CC: OR = 0.93, 95%CI = 0.78-1.10; AA vs AC: OR = 1.02, 95%CI = 0.92-1.13; dominant model: OR = 1.00, 95%CI = 0.91-1.10; recessive model: OR = 0.92, 95%CI = 0.78-1.08). In conclusion, this meta-analysis suggests that the A1298C polymorphism in the MTHFR gene may be not associated with susceptibility to ovarian cancer.

Key words: A1298C polymorphism; MTHFR gene; Ovarian cancer