

Association between *MTHFR* 677C/T polymorphism and psoriasis risk: a meta-analysis

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ABSTRACT. Previous studies investigating the association between methylenetetrahydrofolate reductase (*MTHFR*) 677C/T polymorphisms and psoriasis risk have reported inconsistent results. The present meta-analysis aimed to comprehensively evaluate the association between *MTHFR* 677C/T polymorphism and psoriasis risk. The studies regarding the association between *MTHFR* 677C/T polymorphism and psoriasis risk were retrieved from the PubMed, Embase, Web of Science, Chinese National Knowledge Infrastructure, and Chinese Biomedical databases. Data were extracted and statistical analysis was performed with the program STATA 12.0. A total of seven studies involving 1290 psoriasis cases and 1068 healthy controls were retrieved. Combined analysis showed that there was no significant difference in *MTHFR* 677C/T genotype distribution between psoriasis and control subjects in the comparisons C vs T, CC vs CT + TT, CC + CT vs TT, CC vs TT,

and CC vs CT [respectively: odds ratio (OR) = 0.98, 95% confidence interval (CI) = 0.76-1.26, P = 0.882; OR = 1.11, 95%CI = 0.81-1.51, P = 0.526; OR = 0.79, 95%CI = 0.53-1.19, P = 0.261; OR = 0.88, 95%CI = 0.51-1.52, P = 0.648; OR = 1.19, 95%CI = 0.90-1.58, P = 0.217]. Subgroup analysis by ethnicity also showed no significant association between *MTHFR* 677C/T polymorphism and psoriasis risk in both Asian and Caucasian populations. In conclusion, this meta-analysis indicates that *MTHFR* 677C/T polymorphism may not be associated with psoriasis risk.

Key words: Methylenetetrahydrofolate reductase; Polymorphism; Psoriasis; Meta-analysis