



Association between peptidyl arginine deiminase 4 (PADI4)-104C/T polymorphism and rheumatoid arthritis: a meta-analysis in the Chinese population

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Genet. Mol. Res. 15 (3): gmr.15038750
Received April 2, 2016
Accepted June 7, 2016
Published September 19, 2016
DOI <http://dx.doi.org/10.4238/gmr.15038750>

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ABSTRACT. The correlation between the -104C/T polymorphism in the peptidyl arginine deiminase 4 (*PADI4*) gene and rheumatoid arthritis (RA) risk has been analyzed in several studies. However, the results are inconclusive and remain to be confirmed in several ethnic groups. The effect of the *PADI4*-104C/T polymorphism on RA risk in the Chinese population was evaluated in a meta-analysis. Studies with dates of publication up to July 2015 conforming to the inclusion criteria were retrieved from PubMed and Chinese databases. The associations were assessed with pooled odds ratios (ORs) and 95% confidence intervals (CIs). Ten studies, including 2119 RA cases and 1962 controls, that conformed to the study criteria were included in this analysis. The overall analysis indicated a significant association between the *PADI4*-

104C/T polymorphism and RA risk in the Chinese population (T vs C: OR = 1.45, 95%CI = 1.18-1.78; TT vs CC: OR = 1.49, 95%CI = 1.24-1.80; TT vs CC+CT: OR = 1.28, 95%CI = 1.08-1.51; TT+CT vs CC: OR = 1.75, 95%CI = 1.30-2.37). Analysis of data stratified by the geographic area and source of controls revealed that the *PADI4*-104C/T polymorphism was significantly associated with RA risk in a North Chinese population. In conclusion, the results of this meta-analysis indicated that the *PADI4*-104C/T variants could influence the risk of RA in the Chinese population; further studies in other ethnic groups are required to draw definite conclusions.

Key words: Meta-analysis; Peptidylarginine deiminase 4; Polymorphism; Rheumatoid arthritis