



## Meta-analysis demonstrates association between Arg72Pro polymorphism in the *P53* gene and susceptibility to keloids in the Chinese population

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**ABSTRACT.** Although there is evidence suggesting genetic susceptibility for keloids, studies investigating the association between Arg72Pro polymorphism in the *P53* gene and tendency to form keloids have given variable results. We made a meta-analysis of the effects of *P53* Arg72Pro polymorphism on keloid risk in the Chinese population by conducting searches of the published literature in Pubmed, Embase, CBMdisc, and CNKI databases up to June 2011. Six studies were included in the meta-analysis, with a total of 359 keloid cases and 493 healthy controls. Meta-analysis results, respectively in the PCR-reverse dot blot and PCR-RFLP subgroups, showed significant associations between *P53* Arg72Pro polymor-

phism and susceptibility to keloid in the comparisons of Pro allele vs Arg allele (odds ratio (OR) = 2.29, 95% confidence interval (CI) = 1.45-3.60; OR = 0.74, 95%CI = 0.56-0.98); Pro/Pro vs Pro/Arg + Arg/Arg (OR = 2.91, 95%CI = 1.88-4.53; OR = 0.54, 95%CI = 0.32-0.92); Pro/Pro vs Arg/Arg (OR = 2.79, 95%CI = 1.54-5.06; OR = 0.51, 95%CI = 0.28-0.92); Pro/Pro vs Pro/Arg (OR = 2.85, 95%CI = 1.75-4.63; OR = 0.57, 95%CI = 0.32-0.99). We conclude that the Pro allele of P53 Arg72Pro polymorphism is a risk factor for keloids in the Chinese population.

**Key words:** P53 codon 72 polymorphism; Susceptibility; Keloid; Meta-analysis