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Lack of an association between *TSC* gene Arg904Gln polymorphisms and essential hypertension risk based on a meta-analysis

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ABSTRACT. Although there have been several studies investigating a possible association between essential hypertension and *TSC* gene Arg904Gln polymorphisms, the results have been inconsistent. We conducted a meta-analysis of four case-control studies (one study in Europe and three studies in Asia), including 1811 essential hypertension cases and 1381 controls. The pooled results showed no significant associations between any of these polymorphisms and essential hypertension (allele Arg *vs* allele Gln: odds ratio (OR) = 0.94, 95% confidence interval (95%CI) = 0.70-1.27), additive genetic model (Arg/Arg *vs* Gln/Gln: OR = 0.98, 95%CI = 0.43-2.23), dominant genetic model (Arg/Arg + Arg/Gln *vs* Gln/Gln: OR = 0.97, 95%CI = 0.43-2.21), and recessive genetic model (Arg/Arg *vs* Arg/Gln + Gln/Gln: OR = 1.03, 95%CI = 0.45-2.35). Based on the results of our meta-analysis, we conclude that the *TSC* gene Arg904Gln polymorphism is not associated with essential hypertension risk.

Key words: *TSC*; Arg904Gln; Polymorphisms; Essential hypertension; Meta-analysis

