



# Meta-analysis of angiotensin-converting enzyme insertion/deletion polymorphism and myocardial infarction in Han Chinese

W. Zhao<sup>1,2</sup>, S.T. Ma<sup>1,3</sup> and L.Q. Cui<sup>1</sup>

<sup>1</sup>Department of Cardiology,  
The Provincial Hospital Affiliated to Shandong University,  
Shandong Province, China

<sup>2</sup>Department of Cardiology, Shandong Jiaotong Hospital,  
Shandong Province, China

<sup>3</sup>Department of Cardiology, The Fourth Hospital of Jinan,  
Shandong Province, China

Corresponding author: L.Q. Cui  
E-mail: cuilqmed@126.com

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**ABSTRACT.** It has been suggested that the angiotensin-converting enzyme (ACE) gene insertion/deletion (I/D) polymorphism is linked to susceptibility to myocardial infarction (MI). In this study, we performed a meta-analysis to assess the relationship between ACE I/D polymorphism and MI in the Chinese Han population. Eight studies including a total of 1609 subjects were selected for inclusion in the analysis. The references were retrieved using the PubMed and China National Knowledge Infrastructure databases. The analyses were performed using the STATA 12.0 software. ORs and 95%CI were assessed after the collected data were pooled for analysis. There was a significant association between ACE I/D polymorphism and MI in the Chinese Han population (II vs DD: OR = 0.40, 95%CI = 0.31-

0.53; II vs DI: OR = 0.72, 95%CI = 0.57-0.91; the dominant model: OR = 1.74, 95%CI = 1.41-2.16; the recessive model: OR = 0.47, 95%CI = 0.38-0.60). The sensitivity analysis further confirmed the result. Publication bias was not observed in this meta-analysis. The ACE I/D polymorphism may be a risk factor for MI in the Chinese Han population. However, larger studies with a stratified case-control population and biological characterization are needed to validate this finding.

**Key words:** Angiotensin-converting enzyme; Meta-analysis; Insertion/deletion polymorphism; Myocardial infarction