



# ***XRCC3* T241M polymorphism and lung cancer risk in the Han Chinese population: a meta-analysis**

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**ABSTRACT.** Numerous studies have evaluated the association between the X-ray repair cross-complementing group 3 (*XRCC3*) T241M polymorphism and lung cancer risk; however, the actual association is controversial. We examined whether the T241M polymorphism confers a lung cancer risk in China. We searched the PubMed, Google Scholar, and China National Knowledge Infrastructure databases to identify studies that examined the association between the *XRCC3* T241M polymorphism and the risk of lung cancer. We estimated the pooled odds ratio with its 95% confidence interval to assess this association. A total of 3977 patients with lung cancer and 3761 controls from 8 comparative studies were included in this meta-analysis. The meta-analysis results revealed no significant association between the *XRCC3* T241M polymorphism and lung cancer risk. In the subgroup analysis, 6 studies with sample sizes over 500 found that the T241M polymorphism had no association with lung cancer. The *XRCC3* T241M

polymorphism may not be a risk factor for lung cancer. However, larger studies involving a stratified case-control population and biological characterization are needed to validate this finding.

**Key words:** Lung cancer; Meta-analysis; T241M polymorphism; XRCC3