



Angiotensin II type 1 receptor gene A1166C polymorphism and breast cancer susceptibility

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ABSTRACT. Numerous studies have evaluated the association between the angiotensin II type-1 receptor (AGTR1) gene A1166C polymorphism and breast cancer risk. However, the specific association is controversial. The aim of the present study was to derive a more precise estimation of the relationship. A comprehensive research was conducted of the PubMed and the Google Scholar databases through February 2015. Data were assessed using STATA version 12.0. Pooled odds ratios with 95% CIs were derived from the fixed-effect or random-effect models. A total of 911 patients with breast cancer and 1284 controls from 5 case-control studies were included in this meta-analysis. The meta-analysis results showed no significant association between the *AGTR1* gene A1166C polymorphism and breast cancer risk. Similarly, in the subgroup analysis regarding ethnicity, no associations were observed. Heterogeneity and publication bias were not observed in this meta-analysis. The A1166C polymorphism in the *AGTR1* gene may not be a risk factor for breast cancer. Further, large, and well-designed studies are needed to confirm this conclusion.

Key words: Angiotensin II type-1 receptor; Breast cancer; Meta-analysis; Polymorphism