Genetics and Molecular Research

Association between the *XPG* gene Asp1104His polymorphism and lung cancer risk

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Genet. Mol. Res. 15 (2): gmr.15027395
Received August 7, 2015
Accepted May 11, 2016
Published June 10, 2016
DOI http://dx.doi.org/10.4238/gmr.15027395

ABSTRACT. It has been suggested that the xeroderma pigmentosum complementation group G (*XPG*) gene Asp1104His polymorphism is linked to susceptibility to lung cancer. However, the results from the published studies are contradictory rather than conclusive. With this meta-analysis, we aimed to achieve a better understanding of the effects of the *XPG* gene Asp1104His polymorphism on lung cancer risk. We identified six eligible studies from five publications that included a total of 2293 lung cancer patients and 2586 controls. There was a significant association between the *XPG* gene Asp1104His polymorphism and lung cancer (His/His *vs* Asp/Asp: OR = 1.24, 95%CI = 1.04-1.48; Asp/His *vs* Asp/Asp: OR = 1.17, 95%CI = 1.03-1.34; the dominant model: OR = 1.18, 95%CI = 1.04-1.33; the recessive model: OR = 1.10, 95%CI = 0.94-1.28). In a subgroup analysis by nationality, we found a significant association between the *XPG* gene Asp1104His polymorphism and lung cancer risk in Asians. No publication bias was found in this study. The results from this meta-analysis indicate that the *XPG* gene Asp1104His polymorphism is associated with lung cancer risk, especially in Asians.

Key words: Lung cancer; *XPG* gene; Genetic variant; Meta-analysis

