



Meta-analytical association between angiotensin-converting enzyme gene polymorphisms and sarcoidosis risk

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Genet. Mol. Res. 14 (2): 3590-3600 (2015)

Received August 28, 2014

Accepted October 20, 2014

Published April 17, 2015

DOI <http://dx.doi.org/10.4238/2015.April.17.8>

ABSTRACT. Previous reports identified an association between sarcoidosis and an insertion/deletion (I/D) polymorphism in angiotensin-converting enzyme. Our meta-analysis of articles published between March 1996 and June 2013 identified studies in the PubMed, EMBASE, and the China National Knowledge Infrastructure databases. We examined whether angiotensin-converting enzyme polymorphisms influence sarcoidosis susceptibility. The strength of the association between I/D polymorphisms and sarcoidosis risk was measured based on the odds ratio and 95% confidence interval. Analysis was based on recessive and dominant models. Ethnic subgroup analysis from 18 articles (1882 cases and 3066 controls) showed that DD homozygote carriers were at a slightly increased risk of sarcoidosis compared with II homozygotes and DI heterozygotes ($P = 0.03$). Comparison of DD plus DI vs II revealed no significant association with sarcoidosis in group

and ethnic subgroup analysis. We found that the I/D polymorphism in the angiotensin-converting enzyme gene was not associated with a major risk of sarcoidosis.

Key words: Angiotensin-converting enzyme; Meta-analysis; Polymorphism; Sarcoidosis