



Association between IRF5 polymorphisms and autoimmune diseases: a meta-analysis

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ABSTRACT. In this study, we investigated the association between 5 interferon regulatory factor-5 (IRF5) single nucleotide polymorphisms (SNPs) and autoimmune diseases using the Medline citation index. Twenty-eight studies with 74 comparisons, including 16 rheumatoid arthritis (RA), 43 systemic lupus erythematosus (SLE), 2 juvenile idiopathic arthritis (JIA), 6 multiple sclerosis (MS), and 5 systemic sclerosis (SSc) studies, were examined in the meta-analysis. The SNP rs2004640 was significantly associated with SLE, MS, and SSc, but not with JIA [odds ratio (OR) = 1.06, 95% confidence interval (CI) = 0.90-1.24, P = 0.48] or RA (OR = 1.03, 95%CI = 0.95-1.11, P = 0.44). A significant association was observed between rs2280714 and SLE, MS, and SSc, but not RA (OR = 1.01, 95%CI = 0.94-1.09, P = 0.80). Rs10954213 was associated with the pathogenesis of SLE, RA, MS, and SSc. rs2070197 and the exon 6 insertion were significantly associated

with SLE. Haplotypes containing rs2004640T and rs2280714T were significantly associated with an increased risk of SLE, but not with RA. This meta-analysis certified that IRF5 polymorphisms confer susceptibility to SLE, MS, and SSc. To further confirm the correlations between polymorphisms of IRF5 and autoimmune disease susceptibility, studies involving a larger number of patients worldwide are necessary.

Key words: IRF5; Autoimmune diseases; Meta-analysis