CD137

Studies have revealed the important role of CD137 in human atherosclerosis.

Zhang et al. analyzed the association of CD137 single nucleotide polymorphisms (SNPs) with ischemic stroke.

They assessed three SNPs (rs161827, rs161818, and rs161810) of the CD137 gene and their association with ischemic stroke in a northern Chinese Han population. A total of 496 ischemic stroke patients and 486 gender-matched control subjects were genotyped.

They classified these patients according to complications with diabetes and hypertension and also by ischemic stroke subtypes. Allele, genotype, and haplotype association studies were tested in all patients and subgroups.

They used multivariable logistic regression analysis combined with 10,000 permutations to analyze the association of CD137 polymorphisms with ischemic stroke. After adjusting for relevant factors, rs161827 was significantly different between patients with and without diabetes and the control group ($p = 0.0001$, $p = 0.014$, and $p = 0.0001$, respectively). In addition, rs161818 and rs161810 differed significantly between patients without diabetes and the control subjects ($p = 0.0001$ and $p = 0.004$, respectively). rs161827, rs161818, and rs161810 were all statistically significant among the combination stroke subgroup compared with the controls. These results indicate that the CD137 gene is associated with risk of ischemic stroke in the northern Han Chinese. Moreover, CD137 gene polymorphism may be one mediating factor between diabetes and ischemic stroke [1].

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Zhang S, Li Z, Zhang R, Li X, Zheng H, Ma Q, Zhang H, Hou W, Zhang F, Wu Y, Sun L, Tian J. Novel CD137 Gene Polymorphisms and Susceptibility to Ischemic Stroke in the Northern Chinese Han Population. Neuromolecular Med. 2017 Jul 28. doi: 10.1007/s12017-017-8457-7. [Epub ahead of print] PubMed PMID: 28755037.