

Association between human opioid receptor genes polymorphisms and pressure pain sensitivity in females

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摘要

Abstract

This study examined the association between pressure pain sensitivity and various single nucleotide polymorphisms (SNPs) of human μ -, κ -, and δ -opioid receptor (i.e. OPRM1, OPRK1, and OPRD1) genes in 72 healthy adult Taiwanese women of Han Chinese race. Pressure pain threshold and tolerance were measured by an algometer and polymorphisms of the opioid receptor genes determined from blood samples. Our data revealed that pressure pain threshold, but not tolerance, in subjects with the minor allele (termed 'GA') genotype of the IVS2+31G>A polymorphism of the OPRM1 gene was significantly higher than those with major allele (termed 'GG') genotype. Neither pressure pain threshold nor tolerance between major and minor alleles of other SNPs of the OPRM1, OPRK1, and OPRD1 genes were significantly different. These data suggest an association between the IVS2+31G>A SNP of the OPRM1 gene and pressure pain sensitivity in healthy adult females.