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Chemokine receptor genotypes and HIV disease progression: a preliminary meta-analysis.

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December 30, 1998

Int Conf AIDS. 1998;12:148 (abstract no. 13311). Unique Identifier :

OBJECTIVE: To evaluate whether chemokine receptor genotypes including heterozygosity for the CCR5 32-bp deletion (CCR5 delta 32) and the presence of the CCR 64I mutation affect the rate of disease progression to AIDS (1993 CDC definition) among HIV-infected patients. METHODS: Preliminary meta-analysis of 8 cohorts with n = 2,741 patients with known CCR5 genotype (45% seroconverters [SC]) and 6 cohorts with n = 2,089 patients with known CCR2 genotype (43% SC). Due to measurement error, it was anticipated that the observed strength of associations should be attenuated among seroprevalent (SP) patients, therefore SP patients were analyzed separately from SC. RESULTS: Heterozygosity for CCR5 delta 32 conferred a highly significant protective effect (odds ratio 0.69 [95% CI, 0.61-0.79] by fixed effects, 0.68 [95%, 0.58-0.80] by random effects) with borderline heterogeneity (0.1 MEETING ABSTRACTS META-ANALYSIS Cohort Studies Disease Progression Genotype Heterozygote Homozygote Human HIV Infections/*EPIDEMIOLOGY/GENETICS Receptors, Chemokine/*GENETICS Receptors, CCR5/GENETICS Viral Load