



Analysis of HLA-DQB1 allele polymorphisms in Uyghur women with cervical cancer

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ABSTRACT. In Uyghur women, mortality rates from cervical cancer are amongst the highest in the nation, and genetic susceptibility probably plays a role in the pathogenesis of the disease. We investigated the correlation between polymorphisms of the HLA-DQB1 allele and cervical cancer in Xinjiang Uyghur women. Cervix tissue samples from 80 cases of cervical cancer and 80 cases of cervicitis were genotyped using polymerase chain reaction-sequence-based typing (PCR-SBT) for HLA-DQB1. Two hundred and ninety-six alleles were identified among the 160 cases. One hundred and thirty-six alleles were heterozygous and 24 were homozygous. Using frequency calculations and statistical analysis, we found that HLA-DQB1*0325 (OR: 10.60, 1.341-83.81) and HLA-DQB1*0332 (OR: 12.59, 2.909-54.526) were more frequently identified in the cervical cancer group compared with the cervicitis group ($P < 0.05$). However, HLA-DQB1*0317 (OR: 0.49, 0.304-0.798) and HLA-DQB1*040302 (OR: 0.40, 0.243-0.658) were present less frequently in the cervical cancer group ($P < 0.05$). The frequency of the HLA-DQB1 genotype in Uyghur was different from that reported previously in other areas. HLA-DQB1*0325 and HLA-DQB1*0332 probably act as cervical cancer susceptibility genes in Uyghur women from Xinjiang. In contrast, HLA-

DQB1*0317 and HLA-DQB1*040302 may be protective genes.

Key words: Cervical cancer; HLA-DQB1; PCR-SBT; Predisposing genes