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P-42; **THE OVERALL ANALYSIS OF HPV AND HLA FOR CHINESE CERVICAL CANCERS**

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**Background:** Human papillomavirus (HPV) is a major risk factor for the development of cervical cancer (CC). Human leukocyte antigen (HLA) alleles have been associated with an increased or decreased risk of developing CC through infection with oncogenic forms of HPV.

**Objectives:** The aim of this study was to analyze the interaction between HPV and HLA for invasive cervical cancer.

**Materials and Methods:** It was found that HPV infection rates were 91.33% in CC, and 26.15% in controls using PCR-SBT method in China.

**Results:** Ten HPV genotypes including HPV-16, -58, -61, -6, -39, -81, -18, -33, -11 and -52 were detected in controls. Among the controls, 14.84% were positive for HPV-16, 2.47% for HPV-58, and 8.84% for other HPV types. It was found that 16 HPV genotypes including HPV-16, -18, -58, -33, -81, -31, -68, -39, -67, -6, -11, -26, -52, -62, -66, and -70 were detected in patients with CC. Among the CC specimens, 68.67% were positive for HPV-16, 6.33% for HPV-18, 3.33% for HPV-58 and 13.00% for other HPV types. In HPV-16 positive cervical cancers, 23.6% of them were belonged to prototype, 65.5% were Asian variant, 5.5% were African type 1 and 3.6% were European variants.

Our results indicate that HLA-DQB1\*060101, DPB1\*1301, D6S1043 alleles 112, 132 and D6S2764 allele 209 may confer susceptibility to CC, and DRB1\*150101-DQB1\*0602 haplotype and DRB1\*070101-DQB1\*0201 haplotype may contribute to the resistance to the development of CC among Chinese women. Our finding also implies that polymorphic amino acids at the putative antigen binding residues 9 and 37 of HLA-DQB1 alleles may play an important role in the development of cervical cancer.

**Conclusions:** The study suggests that specific HLA class II alleles and haplotypes may influence the immune response to specific HPV-encoded epitopes and affect the risk of cervical cancer in Chinese population from an area with a high incidence of this neoplasia.