



Prevalence of human papillomavirus genotypes among women with cervical lesions in the Shaanxi Province of China

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ABSTRACT. This study aimed to investigate human papilloma virus (HPV) genotypes among women with cervical lesions in Shaanxi Province, China, to obtain information regarding cervical lesion prevention and treatment. The study included 4508 HPV-positive subjects; cervical swab specimens were collected and tested for HPV infection status and HPV genotypes using polymerase chain reaction and reverse dot-blot hybridization. Women positive for HPV with cervical lesions, including chronic cervicitis, cervical intraepithelial neoplasia, and cervical squamous cell carcinoma (SCC), were examined; HPV-positive women with no cervical lesions were controls. Data were pooled and weighted estimates have been presented. For women with no cervical lesions and positive for one HPV genotype, HPV 52, 16, 58, 81, 33, and 56 were the most common; for multiple-HPV genotype infection, HPV 16, 52, 6, 18, 58, and 66 were the most common. Collectively, HPV 16, 58, 52, 18, 33, and 81 were the most common in women with cervical lesions. HPV 16 comprised 26.71%

of single-genotype and 15.64% of multiple-genotype infections. The proportion of HPV-16-positive cases was 29.15%, which was the highest among all HPV genotypes ($P < 0.01$). Single-HPV genotype infection was the most common in cervical HPV infection (77.48%); infection with two HPV genotypes comprised 72.22% of multiple-genotype infections. The proportion of single-low-risk HPV genotype infections decreased with increase in cervical lesion severity; there were no single- or multiple-low-risk genotype HPV infections in cervical SCC patients. The proportion of multiple-genotype HPV infections with at least one high-risk genotype increased with cervical lesion severity.

Key words: HPV; Genotype; Chronic cervicitis; Cervical intraepithelial neoplasia; Cervical squamous cell carcinoma