Prevalence of cervical human papillomavirus in Taiwanese women

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摘要

Abstract

PURPOSE: To define the prevalence rate of cervical human papilloma virus (HPV) using DNA oligonucleotide microarray and its correlation with risk factors in Taiwanese women in metropolitan Taipei. METHODS: Thirteen hundred and twenty healthy women, aged 21 - 65 yr without history of cervical intraepithelial neoplasia (CIN) or carcinoma were included in this prospective study. Pap smear and HPV typing using oligonucleotide microarray were performed for each woman. They were given a standardized questionnaire to obtain information about the risk factors of cervical cancer in Taiwan. RESULTS: The overall HPV positivity was 19.85% and multiple infections were found in 35.84% of the infected group, 7.92% of the whole study population. The younger the subject, the higher was the infection rate and multiple infection rates. The most common HPV types were 16, 18, 58, 52, 51 and 56, which is different from the western world. The sensitivity of the HPV DNA chip in detecting CIN and cervical carcinoma is 97.06%, and 100% in detecting CIN 2 or more lesions. Risk factors for HPV infection include earlier coitarche ($P < 0.01$), multiple sexual partners ($P < 0.05$), history of sexually transmitted disease ($P < 0.05$), two or more vaginal deliveries ($P < 0.05$) and infrequent use of condoms ($P < 0.05$). The association between oral contraception or cigarette smoking and HPV infection could not be determined because few women smoke or used oral contraception. There was no relationship between induced abortion and HPV infection. CONCLUSIONS: About one-fifth of adult women in metropolitan Taipei were cervical HPV positive. The popular HPV types and the risk factors of HPV infection in metropolitan Taipei are not the same as those in the western world. The sensitivity of the HPV DNA chip in detecting cervical neoplasia is very high