

The Prevalence and Risk Factors of High-Risk Human Papillomavirus Types in Genital Condylomata Acuminata of Korean Male

Introduction and Objective: Genital condylomata acuminata is an epithelial proliferative lesion caused by human papillomavirus (HPV) infection. HPV have been divided into low-risk and high-risk types based on their oncogenic potential. We analyzed the HPV types and evaluated the prevalence of high risk HPV types in genital condylomata acuminata and its risk factors.

Materials and Methods: The study included 126 male (mean age 30.9 , 18-67 years) with genital condylomata acuminata. Polymerase chain reaction (PCR) was performed to determine the types of HPV. Characteristics of patients and condylomata acuminata included age (≤ 30 vs >30 years), circumcision status, the number of warts (≤ 5 vs >5), the sites of lesions (including penopubic junction vs except penopubic junction), and macroscopic morphology (papillary vs sessile).

Results: HPV DNA was detected in 119 (94.4%) of 126 patients. High-risk HPV DNA was detected in 26 (21.8%) patients and low-risk HPV detected in 117 (98.3%). In low-risk HPV cases, HPV type 6 was the most common (N=76), and type 11 (N=12), other types (N=4) in order. In high-risk cases, type 16 was the most common (N=8). Twenty four cases of high-risk HPV showed co-infection with low-risk HPV. Only two cases showed single infection with high-risk type 16 or 51. There were 16 cases (36.4%) of high-risk HPV in 44 patients with condylomata acuminata on penopubic junction and three cases (60%) in five uncircumcised patients of those. Binary logistic regression analysis revealed that condylomata acuminata on penopubic junction (OR=6.02, 95% CI=2.04-17.81, $p=0.001$) and with uncircumcised state (OR=14.58, 95% CI=1.81-117.25, $p=0.012$) have significant risk of high-risk type HPV infection.

Conclusions: The prevalence rate of high-risk HPV types in genital condylomata acuminata of Korean male is about 22%. The patients with high-risk HPV infection should be counseled for the prevention of HPV transmission and their sexual partners might be recommended for PCR for HPV infection. Especially the patients who are not circumcised and have condylomata acuminata on penopubic junction should be considered about probability of high-risk HPV infection.