

Human papillomavirus types 52 and 58 in uterine cervical squamous lesions

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Objective: To estimate the prevalence and genotypes of high-risk papillomavirus (HPV), using liquid-based cytology (LBC) in Japan.

Methods: ThinPrep LBC specimens were collected from Japanese women (n=11039), aged 14-98 (mean 44.6). After classifying cytological diagnosis by the Bethesda system 2001, specimens were analyzed for HPV DNA by the multiplex polymerase chain reaction method, where 1228 specimens were positive for cervical smear, except adenomatous lesions, and 2563 samples (mean age 44.3) were randomly selected from 9737 with no abnormal cytology findings (NILM).

Results: HPV genotypes were detected in 9.3% (238/2563) of NILM and 68.9% (846/1228) of atypical squamous cells of undetermined significance (ASC-US) or more cervical lesions. In 238 NILM samples, HPV genotypes, positive rates and mean ages were HPV 52 (22.7%, 40.9yr), HPV 58 (15.1%, 58.0yr), HPV 16 (14.7%, 35.8yr) and HPV 18 (10.5%, 34.4yr). In positive cervical smears, they were HPV 16 (27.2%, 35.1yr), HPV 52 (27.1%, 38.7yr), HPV 58 (23.2%, 38.4yr), and HPV 18 (6.4%, 35.0yr) in the order of frequency. Among the patients with abnormal cytology, most patients infected with HPV 16 and 18 were between 20-29 years old, decreasing with age thereafter. As for HPV 52 and 58, although the detection rate was high in 30 to 39 years old, it also was significant in the 50s and 60s age groups.

Conclusions: HPV 52 and 58 were higher than that observed for HPV 16 in older groups. After widespread current HPV vaccinations, we still must be aware of HPV 52 and 58 infections in some countries.

Biography

Dr. Taniyama has completed his Ph.D. at the age of 31 years from Hiroshima University School of Medicine in 1985. He is the director of institute for clinical research affiliated with national hospital organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan. He has organized a multihospital study of HPV genotypes and LBC for uterine cervical lesions in Japan and reported a comparative study of diagnostic clues for uterine cervical lesions among cytotechnologists in Asian countries.