

Detection of Human Papilloma Virus DNA by Chip Assay and P16 Expression in Squamous Cell Carcinoma of Bladder in Korean

Introduction and Objective: Human papilloma virus (HPV) is a well known risk factor of squamous cell carcinoma of the uterine cervix and head and neck. The aim of this study was to determine the association of HPV infection and the expression of p16 in squamous cell carcinoma of the bladder in Korean.

Materials and Methods: We analysed the presence of HPV infection using HPV-DNA chip in 34 squamous cell carcinoma of the bladder and compared that with 13 metaplasia of the bladder, between July 2001 and march 2011. We also evaluated the expression of p16 using immunohistochemistry.

Results: Mean age was 71.2 ± 7.7 and 66.7 ± 9.7 in squamous cell carcinoma group and squamous metaplasia group, respectively. Male to female ratio was 82.4% (28/34) of squamous cell carcinoma group and 60% (6/10) of metaplasia group. Smoker was 50.0% of squamous cell carcinoma group and 23.1% of metaplasia group. Of the 34 squamous cell carcinoma group, HPV DNA was detected in 5 (14.7%) samples, while it was present in only one sample (7.7%) in metaplasia group. The type of virus was HPV 18 except of one HPV 35. Overexpression of p16 was detected in 50% (17/34) of squamous cell group. Both detection of HPV DNA and overexpression of p16 were observed in 3 (8.8%) in squamous cell carcinoma group, but none of them in metaplasia group.

Conclusions: We concluded that HPV may play a role in the development of squamous cell carcinoma of urinary bladder.