



## RISK FACTORS OF PERSISTENT HPV INFECTION AFTER TREATMENT FOR HIGH-GRADE SQUAMOUS INTRAEPITHELIAL LESION

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**Context:** Persistent infections with high-risk HPV (HR HPV) play a central etiological role in the development of high-grade squamous intraepithelial lesion (HSIL) and invasive cancer. Women with persistent HR HPV infections after treatment for HSIL have an increased risk of disease recurrence, which can progress to cervical cancer.

**Objective:** To evaluate the risk factors associated with persistent HR HPV infections in patients undergoing cervical excision for treatment of HSIL.

**Methods:** The clinical characteristics, cervical cytology, and HPV test results were reviewed. Persistent HR HPV infections were identified within six months after treatment. The effects of various factors such as patient age, menopausal status, parity, HPV type, and histopathological results on persistent HR HPV infections were assessed using univariate and multivariate analyses.

**Patients:** A total of 160 patients who underwent cervical excision for treatment of HSIL between January 2014 and December 2014.

**Interventions:** None

**Main Outcome Measures:** Clinical risk factors of persistent HR HPV infections after treatment for HSIL were analyzed as the main outcome measures.

**Results:** The mean age of patients was  $38.1 \pm 11.5$  years (range 18–86 years). Among them 148 (92.5%) had HR HPV infections, and persistent infections after surgical treatment were detected in 48 (32.4%) patients. Univariate logistic regression analysis showed that older age (> 50 years), short follow-up duration (< 3 months), and menopause were associated with persistent HR HPV infections. Multivariate analysis showed that menopausal status was the only significant independent predictor for HR HPV persistence after treatment (odds ratio, 5.08; 95% confidence interval, 1.93-13.36;  $P=0.001$ ).

**Conclusions:** Persistent HR HPV infections were detected in approximately 30% of patients within six months after cervical excision for HSIL. Elderly patients with menopause are at increased risk of HR HPV persistence after treatment for HSIL.

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