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## Screening for human papillomavirus (HPV) in Egyptian women by the second-generation hybrid capture (HC II) test

### Authors' Contribution:

- A** Study Design
- B** Data Collection
- C** Statistical Analysis
- D** Data Interpretation
- E** Manuscript Preparation
- F** Literature Search
- G** Funds Collection

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### Summary

#### Background:

HPV infection is the main cause of cervical cancer and cervical intraepithelial neoplasia worldwide. The second-generation HC II test is a liquid hybridization assay designed to detect 18 HPV types. The aim of the present study was to detect the rate of HPV infection and its various genotypes among Egyptian women.

#### Material/Methods:

We evaluated 166 Egyptian women. They were classified according to cytology into those with normal cytology, chronic nonspecific cervicitis, and squamous intraepithelial lesions (SILs).

#### Results:

The overall prevalence of HPV DNA in the studied groups was 15.06% (25/166). Among the 25 HPV-positive women, 16 (64%) were infected with high-risk HPV types. 4 (16%) with low risk HPV types, while 5 (20%) had both types. Twenty-one (84%) of the infected women harbored at least one high-risk HPV type, while 9 (36%) harbored at least one low-risk HPV type. Values of HPV viral load for low-risk HPV infection showed no significant difference in the normal and chronic nonspecific cervicitis groups. But when HPV viral load of high-risk HPV infection was compared in the normal, chronic nonspecific cervicitis, and SIL groups, a significant difference was found. The same was detected between chronic nonspecific cervicitis and SIL and between normal cytology and SIL, suggesting an association between viral load and risk of SIL and, accordingly, cancer.

#### Conclusions:

It may be concluded that HPV testing using the HC II assay is a useful tool when combined with cytology in the diagnosis of high-risk HPV viral types in apparently normal tissues.

#### key words:

HPV • SIL • cervical neoplasia • hybrid capture • viral load

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