The epidemiological survey of HPV infection in married women referring to Firoozgar Hospital

M. Jamshidi Makiani 1,∗, S. aminimoqaddam 2, S. minaian 3, S.A.A. mosavi 4, Z. moeeni 4, M. Zangeneh 5

1 Tehran university of medical science, Tehran, Iran, Islamic Republic of
2 Firoozgar hospital, IUMS, Tehran Iran, Tehran, Iran, Islamic Republic of
3 Iran University of Medical Sciences, Tehran, Iran, Tehran, Iran, Islamic Republic of
4 Gynecology Hospital, TUMS, Tehran Iran,., Tehran, Iran, Islamic Republic of
5 Islamic Azad University, Tehran, Iran, Islamic Republic of

Background: The human papillomavirus (HPV) is the main cause of cervical cancer in developing countries. HPV is common in all socioeconomic groups and is spread all over the world. There are more than 100 types of HPV which are divided into high risk and low risk groups. Molecular method is one of the rapid and accurate methods to study HPV genotypes.

Methods & Materials: The study was conducted in 417 married women with Pap smear samples, referring to gynecology clinics in health center of Firoozgar hospital. The detection of 22 HPV genotypes was performed by using the Multiplex PCR technique. HPV DNA was extracted from positive samples using EzHigh TM DNA Extraction kit. The epidemiological survey of HPV positive samples were evaluated using SPSS 16 software.

Results: HPV was detected in 159 of 417 (38.1%) married women aged 17–85 years. In 22 different age groups among women infected with human papillomavirus, HPV16 (19.1%) was the most frequent HPV types, followed by HPV 39, 18 (12.5%). The highest rate of HPV infections was observed at the age 36 (7.7%). HPV 16 is most common high risk types among HPV positive women who had malignancy history but HPV 35 and HPV 38 are more frequent in women with underlying diseases.

Conclusion: To determine genotypes of HPV and disease management, accurate screening programs are required. Study of prevalence of HPV in each geographical region could be essential to design effective strategies for vaccination against HPV.

http://dx.doi.org/10.1016/j.ijid.2016.02.516