

HPV testing in Iranian men: An epidemiological update

Human papillomavirus infection plays a critical role among individuals causing significant burden of genital malignancies. Most studies have only focused on HPV infection in women for the absolute association between HPV infection and cervical cancer, while no one can deny the role of men infections in the spread of HPV malignancies in women. However, HPV infection is usually presented as a subclinical form in men, resulting in a large number of asymptomatic carriers.^[1-5] It is frequently observing HPV as a sexually transmitted infection is increasing in Iranian men and Middle East countries. Existing data suggested that diagnosed HR-HPV genotypes might not have clinical manifestations on men. The risk of genital and ano-genital neoplasia in women will have been declining using HPV testing and vaccination of men.^[1,4,5]

We assessed the HPV genotypes frequency in those male suffering from sexually transmitted infections or clinical checkup who were referred to a private molecular pathobiology laboratory in Tehran, Iran. Since, remarkable male subjects were referring from clinic to diagnostic laboratories every day.

A total of 50 archival urethral brushing and penile wart specimens were appraised in the study. The sampling and collecting data have met the local ethical considerations of Iran by consent forms. The subjects tested using approved HPV commercial reverse dot blot hybridization diagnostic assay by INNO-LiPA® HPV Genotyping Extra I & II (Fujirebio®). The kit was able to detect 18 HPV High-Risk, 9 Low-Risk and 1 probably High-Risk.^[6,7]

The clinical specimens were consisted of 35 (70%) penile warts, 14 (28%) urethral brushings, and 1 (2%) semen specimens. Studied men had median age of 35.1 ± 7.56. Thirty-nine (78%)

HPV specimens were positive, including 28 (71.79%), 8 (20.51%), and 3 (7.69%) men with single, double and more than three multiple HPV genotypes, respectively. Totally, 20 types of HPV were detected on these participants. Eleven cases (20.4%) had undetectable results. The most dominant types were HPV 6 (LR) (64.1%), 16 (HR) (10.25%), 52 (HR) (10.25%), and 59 (HR) (7.69%) [Figure 1].

The reported prevalences of genital HPV DNA of men were ranged from 1.3% to 72.9% throughout the countries. The majority (approximately 70%) of men were asymptomatic characteristics. It has been reported HPV can be detected in the highest rate at the penile shaft followed by the glans penis/coronal sulcus and scrotum in those heterosexual men. Scientific results have revealed the most frequent observed cancer in men are firstly anal cancers (more than 90%), then oropharyngeal (12-63%) and penile cancers (36-40%).^[1,4,5] Multiple types are obviously detected in subjects with multi sexual partners who are having considerable influence on infection transmission.

In conclusion, HPV was positive in 78% of the examined men. HPV genotypes were confirmed as remarkable pathogens of men genital infections. It would appear similarity of HPV genotypes patterns in genital infections between men and women has been determined the critical role of men genital infections in spread of infections by invisible symptoms. HPV malignancies and infections are increasingly in developing countries and it is transmitting through the unsafe sexual activities and other environmental routes. Hence, the HPV testing and vaccination strategy are strongly suggested for a routine effective preventative program such as care HPV strategy on both women and men groups particularly in Islamic communities.

Key Points:

- HPV genotypes are the most common genital infections in Iranian women and men as well

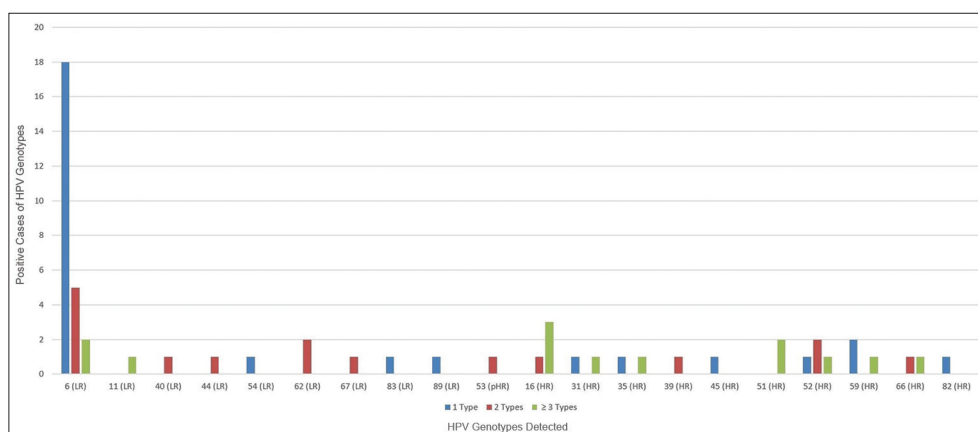


Figure 1: Distribution of HPV Genotypes in Single and Multiple HPV Infections

- HPV genital infections with asymptomatic forms increase the risk of men genital neoplasia
- A routine of HPV testing and vaccination program for men are suggested to apply in Islamic communities.

Acknowledgements

We are grateful to Ms. *F. Kharazi*, Ms. *F. Eskandari*, and Ms. *M. Babaei* for collecting the samples and performing the experiments.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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Received: 27-01-2021

Accepted: 10-03-2021

Published: 29-11-2021

Access this article online

Quick Response Code:



Website:

www.jfmpc.com

DOI:

10.4103/jfmpc.jfmpc_193_21

How to cite this article: Sohrabi A, Hajia M. HPV testing in Iranian men: An epidemiological update. *J Family Med Prim Care* 2021;10:4314-5.

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