

# EXPOSING DANGERS OF HUMAN PAPILLOMAVIRUS IN BOTH MEN AND WOMEN

Aishatu Abdullahi Adamu

*3rd Year Student, Department of Medical Laboratory Technology, NIMS University Jaipur (India)*

## ABSTRACT

*The human papillomavirus (HPV) is the most common sexually transmitted infection among sexually active men and women. It has a lot of impact that is more harmful than even HIV/AIDS. HPV lead to the development of cancer and cancer related diseases. Therefore, this paper exposes dangers of HPV among people and has objectives as to identify factors that lead to infection of HPV; to identify people that are most likely exposed to contacting HPV infection; to identify sign and symptoms of HPV; to provide preventive mechanisms on HPV. The paper is a review research that uses journal articles and report of world health organization for data collection.*

**Keywords:** HPV, STD, Cervical Cancer, Virus, Vaccination

## I. INTRODUCTION

Human papillomavirus Infection (HPV) is the most common sexually transmitted infection that affects both men and women. It is a viral infection that is passed between people through skin to skin contact. There are various types of HPV which are passed through sexual contact and can affect genitals, mouth, or throat. Most HPV infections go away on their own without any signs or symptoms. But the virus still resides within the body of the infected person. When the virus doesn't go away on its own, it causes serious health problems which includes genital warts and warts in the throat (known as recurrent respiratory papillomatosis). HPV also cause cervical cancer and other cancers of the genitals, head, neck and throat.

HPV is a family of over 100 viruses including those which cause warts and are usually transmitted by direct contact. Some types of HPV are associated with tumors of the genital tract including cervical cancer. Most genital HPV infections come and go over the course of a few years, however, sometimes HPV infection may persist for many years with or without causing cellular abnormalities [1].

The type of HPV that causes warts are different from the types that causes cancer. Cancer caused by HPV often don't show symptoms until the cancer is in the later stages of growth. HPV play a role in cancers of the anus vulva, vagina, and some cancers of the oropharynx (the middle part of the throat that includes the palate, the base of the tongue, and the tonsils). HPV infection is also a risk factor for penile cancer (i.e. cancer of the penis). There are other types of HPV referred to as low-risk virus, this is because they rarely cause cancer. But those that are more likely to lead to the development of cancer are referred to as high-risk virus. However, both

low and high-risk types of HPV can cause the growth of abnormal cells but generally, only the high-risk type of HPV that lead to cancer [2].

The infection with high-risk HPV type increase the chance that mild cellular abnormalities will progress to more severe ones or even to cervical cancer if the abnormal cells were not removed. Smoking sometimes become a factor that may increase the risk of cervical cancer in women with HPV infection. National cancer institute defines cervical cancer as the cancer that forms in the tissues of the cervix (the organ connecting the uterus and vagina). Scientists are not clear about the relationship between smoking and the development of cervical cancer, however, the carcinogens from smoke can actually be found in the cervical mucous and they usually damage cells which also allow HPV to infect the cells of the cervix [3].

Even though smoking is not clearly known as the cause of cervical cancer, but it is considered as a risk factor that can possibly cause some abnormal changes in the cells which may lead to a higher likelihood of becoming cancerous.

There is HPV test available to detect the presence of HPV in the cervix. The tests are typically done at the time a woman receives a pap test or pelvic examination. However, there is no HPV test that can determine which HPV infections will go away and which will cause problems. Although there are treatments available for the cancers and warts caused by the HPV.

HPV related cancers are most treatable when detected and treated earlier. Abnormal cervical cells can also be treated to prevent cervical cancer from developing. But most cases of HPV infection do not even cause signs or symptoms and usually resolves on their own without any treatment.

Most sexually active men and women will be infected at some point in their lives and some may be repeatedly infected and the peak time for acquiring infection for both women and men is shortly after becoming sexually active. This is because of the antibody in their body system, the HPV infection usually clear up without any intervention. There are three (3) different types of screening test that are currently available. These include conventional (pap) test and liquid-based cytology (LBC), visual infection with acetic acid (VIA), and HPV testing for hig-risk HPV types.

Therefore, this paper aimed at exposing dangers of HPV among people. It can be achieved with the following objectives:

- i. To identify factors that lead to infection of HPV
- ii. To identify people that are most likely exposed to contacting HPV infection
- iii. To identify sign and symptoms of HPV
- iv. To provide preventive mechanisms on HPV

## II. METHODOLOGY

This paper is a review research that uses secondary data. The data were collected from articles, and the reports of World Health Organization (WHO). The results are presented in a tabular form.

## III. RESULTS

This section presents the results of the findings obtained from WHO and UNICEF reports based on the objectives of the research. The results are present below:

Table 1: Factors that lead to HPV infection

Although HPV is very common and anyone can become infected, there are certain risk factors that increase the chance of getting HPV infection since there are many types of HPV. Some of the factors that increase the risk of getting HPV include:

- i. Having a number of different sex partners or having sex with someone who has had numerous sex partners. The higher the number of partners, the greater the risk of getting infections. But HPV infection is still possible even in people with less or one lifetime sex partner.
- ii. Having a weak immunity such as HIV/AIDS have a chance of contacting HPV because of their weak immune system.
- iii. Cuts or breaks in the skin at the site of contact with an infected person.

Table 2: People that are exposed to HPV infection

Although HPV is common in both men and women, however, health problems resulting from HPV are most likely on these categories of people

- i. Uncircumcised men
- ii. People with weak immune system due to HIV or organ transplant
- iii. Men who engage in anal or sexual activity with other men.

Table 3: Sign and symptoms of HPV infections

The majority of HPV infections do not cause symptoms or disease and resolve on its own. However, persistent infection with specific types of HPV (most frequently type 16 and 18) may lead to precancerous lesion. If this is not treated, the lesions may progress to cervical cancer. But this progression usually takes many years. The symptoms of cervical cancer tend to appear only after the cancer has reached an advanced stage which may include:

- i. Irregular intermenstrual (between periods) or abnormal vaginal bleeding after sexual intercourse.
- ii. Back, leg, or pelvic pain

- iii. Fatigue, weight loss, loss of appetite
- iv. Vaginal discomfort or abnormal vaginal odor

Table 4: HPV Vaccination and Preventive Mechanisms

Not all of the 40 sexually transmitted HPV viruses can cause health problems, but high-risk HPV strains include HPV types 16, 18, 31, 33, 45, 52, 58, and few others. However, among these types, 16 and 18 are the most high-risk that cause about 70% of the cervical cancer. There are currently two (2) vaccines which protect against both HPV types 16 and 18. The vaccines may also have some cross-protection against other less common HPV types which cause cervical cancer. One of these vaccines also protect against HPV types 6 and 11 which cause anogenital warts. Types 6 and 11 belongs to low-risk HPV strains that usually causes about 90% of genital warts and can eventually develop into cancer [3].

Clinical trial results show that both vaccines are safe and very effective in preventing infection with HPV 16 and 18. Both vaccines work best if administered prior to exposure to HPV. Therefore, it is preferable to administer them before first sexual activity which has already started in the developed world by giving HPV vaccination of girls aged 9-13 years before they become sexually active [4].

Other Preventive interventions for boys and girls include:

- i. Education about safe sexual practices including delayed start of sexual activity
- ii. Promotion and provision of condoms for those already engaged in sexual activity
- iii. Warnings about tobacco use which often starts during adolescence and it is an important risk factor for cervical and other cancers.
- iv. Male circumcision

#### **IV. CONCLUSION AND RECOMMENDATIONS**

HPV is one of the dangerous sexually transmitted disease that is common among people, sometimes without them even knowing the existence of the virus residing in them. Most cases of cervical cancer are caused by HPV strains that usually don't cause warts, so women don't realize they have been infected. It is important to know that being vaccinated against the HPV infection can protect an individual from cervical cancer. The paper therefore recommends that proper vaccination should be taken as well as strict adherence to HPV preventive measures.

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