



## Screening of HPV and its genotypes in infected women Genital pests in Dhe-Qar city

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### ABSTRACT

The current study is an analytical descriptive study in which the genital lesions of fifty women were referred to. The clinics of Dhe- Qar city from February 2021 to February 2022 took samples and sent them to the molecular department of the laboratory. They were screened using the PCR method for the presence of HPV and identified four genotypes 18, 16 (high risk) and 11, 6 (low risk). Developed at the same time as preparing a sample of patients by completing a pre-prepared questionnaire, demographic information and risk information Invoices have been recorded. The data was analyzed by spss program and descriptive statistics were used to verify the relationship between risk factors The Fisher test was used for HPV infection.

### Keywords:

human papilloma virus, genotype, genital lesions, polymerase chain reaction

### Introduction

Cervical cancer is the fourth most common type of cancer among all women The second most common type of cancer in women between the ages of 15 and 44 It is the world's latest estimates show that annually 624,527 women were diagnosed with cervical cancer and 672,265 women Advanced HPV is much more than that

HPV is one of the most common types of viral infection Gender plays a role in cervical cancer (1 and 2) the incidence of cervical cancer has been proven caused by human papillomavirus among different Asian countries 100,000 women from 2% in Palestine to 4.29% in Kazakhstan is changing. In Iraq, this rate is 8.2 percent It is estimated that More than 200

different types of this virus have been identified They are divided into low-risk and high-risk groups (3 and 4). The most common low-risk genotypes of human papillomavirus Types 6 and 11 are the ones that often lead to creating losses Benign like genital warts and genital warts Cancers with a low degree of differentiation (5 and 6. (high-risk types) HPV including types 16 and 18 as the most common causes Cervical cancer and other anogenital cancers are raised Most HPV infections are temporary and asymptomatic They recover spontaneously and only slightly The rest of these infections lead to internal neoplasms Epithelial of the cervix and invasive cancers HPV 16 and 18 are responsible for 70% of oral cancer cases The virus is the cause of 80% of

vaginal and 92% of uterine cancers worldwide. Anal cancers are Virus types 16 and 18 infection with or without cytology Therefore, in order to identify patients at risk Malignant lesions are the genitals, HPV genotype determination in Tissue samples can be valuable (15.16 . genotype). The most common type of HPV in the world The world is known (16) but the distribution of temperament Other viruses are reported differently in different communities he is In Iraq, there are no official statistics in this field and the results It can also be distinguished from what has been obtained from the studies that have been conducted.

and that they have sufficient information about the prevalence and abundance of the genotypes of interest. Because of the high prevalence of genital lesions

This study aims to determine the prevalence of HPV, and there is no HPV in women in Dhi Qar city. This was done in the city of Dhi Qar. HPV and its genotypes in women with genital lesions method of analysis In an analytical descriptive study in the city of Dhi Qar Done from February 2020 to February 2021, women Due to the presence of lesions on the genitals, go to the women's clinic in the hospital They were transferred for training and examined.

### **Method**

Samples were taken by number of heads. check first A list that includes the demographic information of the patient, age I Sexual contact, method of contraception, history of use Wife's examination was completed by treatment staff, corticosteroid medication, smoking, occupation and disease history Sterile conditions are taken and in a standard medium. Then samples of the lesions were taken by a gynecologist Transfer medium to the molecular section of the laboratory Presenter. After DNA extraction, quality control and quality inspection

DNA fragments isolated from samples using the . method PCR and a pair of primers -5 ACACAAGTGTGTTCACTAGC-3) PC04: (-5 and PC03: that CAACTTCCATCCAGTTCACC-3) Of the samples positive for the presence of the globin-B . gene PCR-HPV was used. to select the type Genotype of the kit (Baghdad GEN Teb

Hayan Iraq (used to identify two genotypes) (high risk (16, 18). And two genotypes (low risk (11, 6) were determined), according to Manufacturer's instructions have been used The executive protocol for this plan approved by the University's Ethics Committee Dhe-Qar from all patients to participate Consent was obtained in the study and on the basis of the Treaty of Helsinki The researchers noticed it. All aspects of the protection of personal information of the company Enter the collected data into the spss program (version). 20 (Survey and using descriptive statistical methods Among the tables for the frequency distribution of the results were presented. for review Association of risk factors for HPV infection from the Fisher test Comparing the average lifespan of HPV-positive and negative people from the T test used.

In a study conducted among 50 women examined with Genital lesions, presence of HPV in the sample of 28 people (56% of They were reported positive. Among them, the most common genotype involved Type 6 had a frequency of 32 (16%) and other genotypes were The frequency order included 18, 16 and 11. Multiple infections In two samples, it was observed that infection with genotypes were 16 and 18 (Table 1. As shown in Table 2, the mean age In the HPV positive group, the mean age was  $34.07 \pm 8.78$  years Their first sexual contact was  $21.22 \pm 4.83$  years old. In 82.1% of them, the lesion was outside the vagina. All of them are married (96%) (% and about half of them are jobs Their wives were employees (53.6%). In HPV positive people, history of taking OCP, drugs Cortone, smoking and history of infection Infectious diseases in individuals and their spouses, respectively, 57.1% The risk of this frequency was 6.78%, 4.46%, 25%, 6.53%. Factors in them compared to people who have HPV The samples taken from them were reported as negative, most of them were However, this difference was not statistically significant ( $P < 0.05$ ).

Human papillomavirus is the main cause of cervical cancer be Persistent infection with high-risk types of papilloma virus Humans for a long time lead to cervical cancer and neo Intra-epithelial plaques. Unfortunately, this cancer in

Developing countries have a higher prevalence. It was reported that he had positive genital lesions. In the present study, the presence of HPV in 56% of all people. In other studies conducted in Iran, the prevalence of HPV among women with normal cervical cytology, 0.6 to 32.5. The reported percentage is 18-24. The statistics in our study compared to the statistics of other studies. This is the reason that the referring people are all suspicious. They were infected if it was done in other investigations. Pap smear answers have been selected. People in the form of screening or in the form of being normal. In this study, the frequencies of genotypes 6, 11, 16, and 18 among women were investigated, respectively, 32%, 2%, 6%, and 12%. In the study of similar studies in different cities. In Iraq, types 6 and 11 of HPV have also been spread. Women 3 to 6 percent and 16th Brigade about 1/2 to 24 percent and Brigade 18, about 0.2 to 10% (22-26) have been reported. Therefore, in our study, we compared the prevalence of genotypes 6 and 18. It is more with other cities. According to the latest information published in 2017, Prevalence of low-risk species 6 and 11 and high-risk species 16 and 18

HPV among women in the world with normal cytology is 1.2%, respectively. 6.2%, 2.3% and 0.5%, low-grade cervical lesions. Score with cervical lesions, 5.6% and 3.19%, 9.2%, 2.6% above 2.3%, 1.3%, 45.1% and 6.8% and in people with cancer 2.14% and 1.45%, 0.4%, 0.5% of cervix were reported. which indicates the high prevalence of types 6 and 11 in People with cervical lesions with low grade and also related. The prevalence of types 16 and 18 is high with cervical cancer. had a younger age and also the average age of the first results of this study showed that the HPV positive people were more than average. The sexual contact of HPV positive people is lower than these results. It is consistent with other studies done (27-29). The most important risk factors for creation. Epidemiological studies. Cervical cancer caused by HPV infection in young age. During the first sexual intercourse, the presence of multiple sexual partners. They know sexual intercourse and other mentioned factors including number. Pregnancy, the occurrence of the first

pregnancy at a young age and before 18 years old, sexual contact with high-risk men (men with Many women have sexual contact), long-term consumption. Oral contraceptive pills, smoking, status. Low social and economic status, non-observance of reproductive hygiene. Taking drugs that reduce the immune system (1. (in In our study, the use history of OCP, corticosteroid drugs, Smoking and history of diseases. HPV screening in people and their spouses in positive people. To the people who have HPV in the sample taken from them. It was reported negatively, although this difference of opinion was more. There was no statistical significance.

### Recommendations :

It has been proven in cervical cancer. The purpose of this study is to determine the presence of HPV and check its frequency. Background and purpose: Human papillomavirus (HPV) is one of the most common sexually transmitted viral infections, which plays a role in Women of Dhe-Qar. Its genotypes in patients with genital lesions in women attending the clinic.

### Results:

The results showed that the HPV genome was detected in 56% of the studied samples. Frequency of genotypes present in all samples. It included 32%, 12%, 6% and 2% for genotypes 6, 18, 16, and 11, respectively. Combined incidence of types 16 and 18 in 4% of the sample seen. Also seen, the mean age of HPV-infected subjects was  $7.34 \pm 07.8$  years and the mean age of first sexual intercourse was  $22.21 \pm 8.4$  years. he is. No significant relationship was observed between the investigated risk factors and HPV infection ( $p < 0.05$ ).

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