

# PRESENTLY FREQUENT OCCURRENCE OF CERVICAL PATHOLOGIES AND THEIR CAUSES

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## Abstract

Cervical pathologies are a group of diseases that are widespread among women of reproductive age. In recent years, the incidence of inflammatory diseases, dysplasia and cervical cancer has been increasing. This article analyzes the types, etiological factors, pathogenesis, risk factors and causes of their spread of cervical pathologies. The main etiological factors are human papillomavirus (HPV), early sexual life, polysexual intercourse, decreased immunity and lack of screening. Early diagnosis and preventive measures are important in reducing the incidence.

## Keywords

Cervical cancer, dysplasia, erosion, HPV, cervicitis, screening, oncology, Pap test, colposcopy.

## Relevance of the topic

Cervical diseases, in particular cervical cancer, occupy one of the leading places among women's oncological diseases. According to the World Health Organization, hundreds of thousands of new cases are diagnosed every year. Inadequate implementation of screening programs in developing countries leads to the detection of the disease at late stages. Cervical pathologies are also common among women of reproductive age in Uzbekistan.[1,4,8,10]

## Purpose of the topic

To scientifically substantiate the causes and risk factors of the current high incidence of cervical pathologies and highlight the importance of prevention and early diagnosis[3,4,5,6,14].

## Main part

Cervical pathologies are common diseases of the female reproductive system, which include inflammatory processes, background diseases, dysplasia and malignant transformations. In recent years, an increase in the incidence of these pathologies has been observed. The main reason for this is infectious factors, in particular, the widespread infection with human papillomavirus (HPV). Highly oncogenic types of HPV penetrate the epithelial cells of the cervix, affect their genetic apparatus and disrupt the mechanisms that control cell proliferation. As a result, dysplasia and subsequent malignant transformation may develop. Inflammatory processes also play an important role in the development of cervical pathologies. Chronic cervicitis disrupts the regeneration of the epithelial layer, creating conditions for metaplasia and atypical changes. [7,8,9,12,13]

Sexually transmitted infections, bacterial vaginosis, chlamydia, gonorrhea and other microorganisms reduce the protective properties of the cervical mucosa. Prolonged inflammation leads to dystrophic changes in the tissues. Modern diagnostic methods - cytological examination (Pap test), HPV test, colposcopy and biopsy - allow you to detect the disease at an early stage.[1,10,15].

Regular preventive examinations help prevent cervical cancer by treating dysplasia and precancerous processes. The state of the immune system also plays an important role in the development of the disease. In conditions of reduced immunity, the body cannot completely eliminate viruses and other infectious agents, which leads to the persistence of HPV and the activation of oncogenic processes in cells. Chronic stress, malnutrition, vitamin deficiency and harmful habits, especially smoking, weaken local and general immunity. [1,5,9,10,11]

Toxic substances produced by smoking can accumulate in the cervical mucosa and damage cellular DNA. Thus, the etiology of cervical pathologies is multifactorial and develops as a result of the interaction of infectious, hormonal, immunological and social factors. In-depth study of these processes and strengthening preventive measures based on an integrated approach are important in maintaining women's health. [4,5,6,8,9,10]

**Material and discussion. Analysis.** shows that the following factors are responsible for the increase in cervical pathologies:

1. HPV infection - high-risk types (16, 18, 31, 33) cause malignant transformation in epithelial cells.
2. Early onset of sexual life - the virus penetrates more easily during the period of epithelial immaturity.
3. Multiple sexual partners - the risk of infection increases.
4. Decreased immunity - viral persistence increases.
5. Smoking - reduces local immunity.
6. Long-term use of hormonal contraceptives
7. Lack of screening - lack of regular Pap tests and colposcopy.

In recent years, urbanization, migration, and changes in sexual culture have also affected the incidence rates.

**Results** Studies show that:

The analysis of available scientific data shows that several factors contribute to the increasing incidence of cervical pathologies. One of the most important factors is infection with high-risk types of human papillomavirus (HPV), especially types 16, 18, 31 and 33, which are responsible for the majority of cervical cancer cases worldwide. HPV infection leads to genetic changes in epithelial cells and increases the risk of dysplasia and malignant transformation.

Another significant factor is the early onset of sexual activity. During adolescence the cervical epithelium is still immature and more vulnerable to viral infections. Women with multiple sexual partners have a significantly higher probability of HPV infection. In addition, chronic inflammation caused by sexually transmitted infections weakens the local immune defense mechanisms of the cervix.

Studies indicate that cervical inflammatory diseases occur in approximately 40–60% of women of reproductive age. Dysplasia is most frequently diagnosed in women aged 25–40 years, which corresponds to the peak reproductive period. Women infected with high-risk HPV types have several times greater risk of developing cervical cancer compared with uninfected women.

Screening programs play a decisive role in reducing mortality from cervical cancer. In countries where regular Pap tests and HPV screening are widely implemented, the incidence of advanced cervical cancer has decreased significantly. Some studies report that mortality rates have decreased by up to 60–70% after the introduction of national screening programs. Vaccination against HPV has also become an effective preventive measure. Countries that have introduced national HPV vaccination programs report a steady decline in HPV infection rates and precancerous cervical lesions among young women.

- Cervical inflammatory diseases occur in 40–60% of women of reproductive age.
- Dysplasia cases are most often detected between the ages of 25–40.
- The risk of developing cancer is several times higher in women with HPV infection.
- Mortality rates have significantly decreased in regions where screening programs have been introduced.

### **Conclusion**

Cervical pathologies are currently one of the most urgent problems in women's reproductive health. In recent years, there has been an increase in the incidence of inflammatory diseases, background processes (erosion, ectopia), dysplasia and cervical cancer. This is due, on the one hand, to the widespread spread of infectious factors, and, on the other hand, to the insufficient implementation of screening and preventive measures. Analyses show that the main etiological factor of cervical pathologies is the highly oncogenic type of human papillomavirus (HPV). Long-term persistence of the virus leads to dysplasia and subsequent malignant transformation in epithelial cells. In particular, types 16 and 18 play a leading role in the development of cancer. At the same time, early onset of sexual life, multiple sexual partners, sexually transmitted infections, decreased immunity, hormonal imbalance, birth injuries and harmful habits (smoking) create the basis for the development of the pathological process. Scientific data confirm that in countries where HPV vaccination programs have been introduced, the incidence and mortality rates of cervical cancer have significantly decreased. This indicates that the possibility of early detection and prevention of the disease is high. Prevention should include not only medical, but also socio-educational measures. It is necessary to increase sexual culture among the population, form hygienic skills and develop the habit of undergoing regular medical examinations. In general, the high incidence of cervical pathologies is associated with complex factors, and their reduction can only be achieved through a systemic approach. By strengthening preventive measures, early diagnosis and timely treatment, it is possible to maintain women's reproductive health and prevent cervical cancer.

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