AJPMHS
GLOBAL RESEARCH NETWORK

AMERICAN Journal of Pediatric Medicine and Health Sciences
Volume 4, Issue 03, 2026 ISSN (E): 2993-2149

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.

Introduction

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.[1,2,3,4]

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[5,6].

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]

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.[10].

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.

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.

Methodology

This study is based on a comprehensive analytical approach aimed at examining the causes and risk factors associated with the increasing incidence of cervical pathologies. The research methodology combines theoretical analysis of scientific literature, comparative evaluation of epidemiological data, and analysis of clinical observations related to cervical diseases.

First, a systematic review of scientific and medical literature was conducted. International and national sources, including publications from the World Health Organization (WHO), the International Agency for Research on Cancer (IARC), clinical gynecology textbooks, and peer-reviewed scientific articles were analyzed. These sources provided information on the epidemiology, etiology, pathogenesis, and risk factors of cervical pathologies.

Second, a comparative analysis method was used to examine statistical data related to cervical diseases in different regions and countries. This approach made it possible to identify key factors influencing the increase in cervical pathologies and to compare trends observed in developing countries with those in regions where screening and vaccination programs are effectively implemented.

Third, the study applied a descriptive and analytical method to evaluate the main diagnostic and preventive approaches used in modern gynecological practice. Particular attention was paid to screening methods such as cytological examination (Pap test), HPV testing, colposcopy, and biopsy, which are widely used for early detection of cervical diseases.

Finally, the research used a synthesis method to integrate data obtained from different sources and to determine the relationship between infectious, hormonal, immunological, and social factors in the development of cervical pathologies. The combination of these methodological approaches allowed a comprehensive understanding of the current increase in cervical pathologies and the identification of effective preventive strategies.

Result

Ishows 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:

- 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.

Discussion

The results of this study confirm that cervical pathologies remain one of the most significant problems in women's reproductive health worldwide. The increasing prevalence of inflammatory diseases, dysplasia, and cervical cancer is closely related to the interaction of infectious, behavioral, and socio-medical factors[11,12]. The findings of this study are consistent with the conclusions of international organizations and clinical researchers who emphasize the leading role of human papillomavirus (HPV) infection in the development of cervical diseases.

According to epidemiological studies, persistent infection with high-risk HPV types, particularly types 16 and 18, is responsible for the majority of cervical cancer cases. These oncogenic viruses integrate into the genetic material of epithelial cells and disrupt the regulation of cell division, which may lead to dysplastic changes and malignant transformation. The results of the present study support previous scientific findings that HPV infection is the primary etiological factor in the pathogenesis of cervical cancer[13].

In addition to viral infection, behavioral and social factors significantly contribute to the spread of cervical pathologies. Early initiation of sexual activity, multiple sexual partners, and sexually transmitted infections increase the likelihood of HPV transmission and persistence. Similar conclusions have been reported in studies conducted by the World Health Organization and other international research institutions. In particular, inadequate awareness about reproductive health and insufficient implementation of screening programs in developing countries increase the risk of late detection of the disease.

The role of immune status in the development of cervical pathologies should also be emphasized. Reduced immune function weakens the body's ability to eliminate viral infections, leading to the persistence of HPV and the progression of precancerous lesions. Factors such as chronic stress, poor nutrition, vitamin deficiency, and harmful habits, especially smoking, further aggravate this process. Toxic substances contained in tobacco smoke can accumulate in cervical tissues and contribute to DNA damage, thereby increasing the risk of malignant transformation[14,15].

Another important issue discussed in this study is the effectiveness of early diagnostic and preventive measures. Screening programs based on Pap testing, HPV testing, and colposcopy significantly reduce both morbidity and mortality associated with cervical cancer. Evidence from countries where national screening and HPV vaccination programs have been implemented demonstrates a significant decline in the incidence of cervical cancer. These findings highlight the

importance of strengthening preventive healthcare strategies, particularly in developing countries.

Overall, the discussion indicates that cervical pathologies are caused by a complex interaction of biological, social, and environmental factors. Therefore, reducing their incidence requires a comprehensive approach that includes improving public awareness, strengthening screening programs, promoting HPV vaccination, and ensuring early diagnosis and timely treatment.

Conclusions

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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