

MODERN ASPECTS OF CERVICAL PATHOLOGY

Z.Y. Safarova

Republican Specialized Scientific and Practical

Medical Center for Maternal and Child Health

Relevance. The cervix is an important anatomical and functional component of the female reproductive system, the condition of which is crucial for the diagnosis, prevention, and treatment of gynecological diseases. Current understanding of cervical pathology is based on molecular biological studies that have confirmed the key role of the high-risk human papillomavirus (HPV) in the development of precancerous and malignant processes. Cervical cancer (CC) is one of the leading cancer morbidities among women, especially in developing countries. Predisposition to CC is determined by a combination of factors—infectious (persistent HPV infection), hormonal, genetic, and immunological. Current prevention methods include mass HPV vaccination, screening programs (PAP testing, HPV testing), and early diagnosis of intraepithelial neoplasia, which significantly reduce the incidence of invasive forms of the disease and mortality.

Study Methods. A review of 40 case histories of women aged 20 to 60 years, who were being monitored in a gynecology department, was conducted. All patients underwent a clinical and gynecological examination, colposcopy, cytological examination (PAP testing), and, if necessary, a cervical biopsy with subsequent histological confirmation of the diagnosis. Polymerase chain reaction (PCR) HPV testing was used to identify the viral etiology. The data obtained were evaluated using statistical methods of variance analysis.

Results and Discussion. According to the survey results, cervical intraepithelial neoplasia (CIN) of varying degrees was detected in 38.3% of the women. The highest incidence of grade I–II CIN was observed in female patients aged 25–35 years (47.1%), which coincides with the period of greatest sexual activity and frequent partner changes—the main route of HPV infection transmission. High-risk human papillomavirus (types 16, 18, 31, 33) was detected in 72% of patients with dysplastic changes, and in 48% of women, the virus was detected in combination with chronic inflammatory diseases of the cervix. A significant relationship was observed between the presence of persistent HPV infection and the degree of epithelial changes ($r = 0.78$; $p < 0.05$). In women with a repeated positive HPV test after 12 months, the risk of progression to grade II–III CIN was 3.5 times higher than in those whose viral load decreased or disappeared. Carcinoma in situ was diagnosed in 6.7% of those examined, primarily due to long-standing stage III CIN. These results confirm the leading role of high-risk HPV in the development of precancerous and malignant cervical lesions, consistent with current WHO and FIGO studies. HPV vaccination and regular cytological and HPV screening of women of reproductive age remain the most effective methods of primary and secondary prevention.