

OPTIMIZATION OF EARLY DIAGNOSTICS AND TREATMENT OF PAPILOMAVIRUS-ASSOCIATED PRECANCER DISEASES OF THE CERVICAL DISEASES.

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Relevance. Cervical cancer (CC) is a major public health problem in Uzbekistan. According to the estimates of the International Agency for Research on Cancer IARC (IARC) for 2018 [1,2,5], cervical cancer is the second most common type of cancer among women in Uzbekistan after breast cancer and the third most common cause of death of women from cancer in Uzbekistan. According to estimates for 2021, the age-standardized incidence and mortality rates are 5.3 and 2.9 per 100,000 women per year, respectively.

Key words: Cervical cancer (CC), CIN-DIAG, the human papillomavirus.

Cervical cancer is the fourth most common cancer in women worldwide with human papillomavirus (HPV) being the main cause of the disease. Currently available treatment methods are limited and emphasize the need for discovery of new therapies that improve patient outcome. Chromosomal amplifications have been identified as a source of upregulation for cervical cancer driver genes but cannot fully explain the increased expression of immune genes in invasive carcinoma. Insight into additional factors that cause a shift from immune tolerance of HPV to the elimination of the virus, such as local microbiota, may improve diagnostic markers. Furthermore, identification of strategies for selection in combinatorial targeted therapies will allow development of efficient methods to combat the disease. In this work we shed the light on both issues. In our first chapter we examined the currently known roles of microbiota in cancers triggered by viral infections. We provide a model of microbiome contribution to the development of oncogenic viral infections and virus associated cancers, give examples of this process in human tumors, and describe the challenges that prevent progress in the field as well as their potential solutions.

According to the national cancer registry, in 2021 in Uzbekistan, the number of initially diagnosed cases of cervical cancer in the republic was 1827, 997 cases of death from cervical cancer were registered with the following distribution of cases by stages: stage I: 12%, stage II: 54.1% , stage III: 23.6%, stage IV: 5.3%. The main etiological factor in the development of cervical cancer is the human papillomavirus (HPV). HPV infection is the most common sexually transmitted disease (STD). Cervical cancer is caused by oncogenic types of HPV.

The two oncogenic HPV types that most commonly cause cervical cancer are types

16 and 18. Together, they cause approximately 70% of cervical cancer cases worldwide, unfortunately, the proportion of cervical cancer cases prevails in developing countries. [3,4].

CC is one of the few cancers that can be prevented. Solutions exist. CC, when diagnosed at an early stage, is more amenable to effective treatment, which increases overall and relapse-free survival, improves the quality of life of patients, and reduces the cost of treatment. [4,6].

The main task of preventing cervical cancer is the early detection of pathological changes in the neck and timely justified treatment, which is the main goal of our study.

Target. To evaluate the practical significance of the effectiveness of the modified CIN-DIAG staining solution in the diagnosis of pathological changes in the cervix.

Materials and methods. The study included 120 patients with pathological changes in the cervix of varying degrees associated with HPV, such as cervical intraepithelial neoplasia (CIN) and underlying cervical disease. The age of women ranged from 35 to 60 years, the average age was 40+1.5 years. To detect pathologies of the epithelial tissue of the cervix, a modified type of staining solution for "CIN-DIAG" was used, which is a cotton swab on a plastic stick in a plastic tube, the staining solution is in the cap of the tube.

Appearance of the coloring solution: transparent brown liquid; Cotton swab on a plastic stick. The volume of the coloring solution - 2 ml \pm 5%; The pH of the coloring solution is within 4 - 7 units.

The solution enters the cell with the help of folic acid through a specific effect on cell surface receptors. As a result of a specific reaction of the dye solution with the chemical substance of the histiocyte, the tampon is stained. In normal cells, there is a low content of active oxygen, so there is little expression of folic acid receptors on the cell surface and there is no staining of the tampon after the reaction.

Results and its discussion. All the studied patients underwent staining of the cervix with the CIN-DIAG staining solution, the results of which were evaluated according to the criteria

Analysis of test results showed the following results: CIN1 - 40 (33.3%), CIN 2-15 (12.5%), CIN 3-10 (8.3%), cervical cancer - 5 (4.1%) , underlying diseases of the cervix 35 (29.1%) and 15 (12.5%) women without pathological changes, i.e. negative result.

Conclusion. Thus, the modified coloring solution "CIN-DIAG" has the advantages of availability, economy, low technical requirements, safety and non-invasiveness, as a result of which it can be successfully applied in the practice of primary care and in remote regions of the country.

Literature

1. Andosova, L. D. Changes in the vaginal microbiota in women with cervical

diseases // S. Yu. Kudelkina [et al.] // Kazan Medical Journal. - 2012. - N1 - S. 76 - 79.

2. Axel, E. M. Morbidity and mortality from malignant

neoplasms of the female reproductive system in Russia / E. M. Aksel // Oncogynecology. - 2015. - N1. - S. 6 - 15.

3. Apolikhina, I. A. Modern possibilities of organized cervical cancer screening / I. A. Apolikhina, E. V. Filippenkova, E. G. Dodova [et al.] // Obstetrics and Gynecology. - 2016. - N 9. - S. 22 - 26.

4. Associations of genital infections and human papillomavirus as confounding factors of cervical intraepithelial neoplasia / T. E. Belokrinitskaya, N. I. Frolova, D. A. Tarbaeva [et al.] // Doctor. ru. - 2015. - No. 2(12). - S. 14 - 17.

5. Ashafryan, L.A. Pathological prevention of cancer of the reproductive organs // L.A. Ashafryan, V.I. Kiselev, E.A. Muzyhnek. - M., 2009. - С. 20-25.

6. Comprehensive fight against cervical cancer. WHO Guide to Essential Practices. Second edition. Chapter 5., 2017. - S. 144-180.