

МЕДИЦИНСКИЕ НАУКИ

PREVENTION FOR EARLY DETECTION OF PRECANCEROUS AND CANCEROUS DISEASES OF THE CERVIX

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ABSTRACT

Cervical cancer remains one of the most common cancers in the female population. Main the cause of the development of precancerous and tumor diseases of the cervix, vagina, penis, vulva, larynx, etc. is a virus the human papilloma virus. Now the family doctor plays an important role as in the organization of detection of precancerous pathology reproductive tract, and in improving the education of the population regarding the prevention of precancerous and tumor diseases cervix uteri

Keywords: cervical cancer, human papillomavirus, diagnosis, prevention.

The last decade was marked by the evolution of views on many issues of diagnosis and treatment of oncogynecological pathology. Cervical cancer (cervical cancer) remains one of the most common cancers in the female population. Rshm is the second most common cancer among women aged 15-45 years, the third cause of death among women after breast cancer and lung cancer. Every year, more than 500 thousand new cases are registered in the world, both in the early stages of development and in the advanced stages, when it is not possible to achieve a cure. Analysis of risk factors, mortality rates, incidence of LSM, features of viral carcinogenesis can predict that by 2050 this figure could double. In 2012, the world diagnosed about 14.1 million new cases of cancer and recorded 8.2 million deaths from cancer, while in 2008 these figures were 12.7 and 7.6 million, respectively [1,2]. The modern dynamics of the incidence of LSM is characterized, first of all, by a significant change in the age structure, revealing a clear trend towards rejuvenation. World experts note the dramatic difference between morbidity and mortality in Western and Eastern Europe. The lowest incidence rates are recorded in Finland, Denmark, new Zealand, Iceland and other countries where effective screening programmes covering a large segment of the female population are actively implemented. The highest incidence of cervical cancer is observed in Latin America and the Caribbean, East and South Africa, South and South-East Asia. Very low frequency was also noted in China and Western Asia, in Asian countries, this fact 47 scientists associate with the procedure of circumcision in men. Survival of patients with LSM is associated with the stage of the disease, methods of treatment, the period of time after treatment and other factors. According to the summary data of population cancer registries in Europe, 1-year survival of patients with RSM in the 90-ies was 84%, 3-year - 66%, 5-year - 62%. The lowest 5 - year survival rate was observed

in Poland (51%), the highest-in Iceland (84.7%) [2,3,4]. To date, the role of oncogenic strains of the human papillomavirus (HPV 16, 18) in the formation and development of severe lesions of the cervix and LSM has been proved [5,6,7,8,9]. Cervical cancer relates to clinical forms of human papillomavirus infection. The main condition to start the process of cervical carcinogenesis is the presence of HPV in an integrated form (integrated in the DNA of the host cell), the rest of Exo and andfactory are treated as cofactors, providing the impact and implementation of the oncogenic properties of HPV in cervical tissue. The main cofactors include: early sexual activity, promiscuity model of behavior (both men and women), Smoking, frequent recurrent genital infections. Special attention is required for women with immunodeficiency conditions: HIV infection, severe forms of diabetes, hepatitis C, autoimmune and systemic diseases, in such patients, subject to the presence of HPV, cervical disease occur more aggressively and very quickly progressing pre-tumor changes in more severe forms [4,7]. Recently, there has been an increase in HPV infection: according to EUROGIN, infection has increased almost 10 times worldwide, both among women and men. HPV is the cause of precancerous and tumor diseases of the cervix, vagina, penis, vulva, larynx, etc. [4,5,6,10]. The role of HPV in the development of cervical cancer in 1974-1976.prof. Harold Zur Hausen first suggested the possible participation of human papilloma viruses (Human 48 Papilloma Virus, HPV, HPV) in the pathogenesis of cervical cancer and began work on finding viruses in tumor cell cultures and bioplates.

It was found that in malignant tumors of the cervix, two types of papillomavirus are most often detected-HPV 16 and HPV 18 (cloned in 1983-1984), while in benign lesions (flat, pointed condylomas) there are mainly HPV 6 and 11 types, in connection with

which it was proposed to distinguish between papillomavirus "high" and "low" carcinogenic risk (WRC, NKR) [11,12]. Research on HPV infection formed the basis for understanding the mechanisms of carcinogenesis induced by the papilloma virus, for which Harold Zur Hausen was Awarded the Nobel prize in physiology or medicine in 2008. Recent studies have shown that most women become infected with the virus throughout their lives. According to various studies, the incidence of HPV infection in the age group of 16-29 years is 45-81 % [11,12,13]. Among people living an active sex life, especially those under the age of 30, HPV infection affects both men and women with the same frequency. However, these figures reflect only the frequency of clinical manifestations of HPV, and not the true extent of infection in the population, as subclinical and latent forms of infection are not recorded. In 30% -40% of cases, the virus is spontaneously eliminated and cured within 6-12 months. In other cases, there is a long recurrent course, due to the persistence of the virus, in which it is possible to form a malignant transformation of the cervical epithelium. The peculiarity of the infection is not the ability to detect the virus in the blood and the fact that the production of antibodies by the immune system occurs only in half of the cases. At the same time, the level of antibodies is very low and is not able to provide long-term reliable protection against re-infection [7,12]. A thorough study of HPV negative tumors revealed new rare types of HPV. Variations in the geographical distribution of papillomaviruses were found: HPV 16 prevails in European and American women, while HPV 18 was found in more than 50% of cases in Indonesia [14,15,16,17]. In addition, the following epidemic features of HPV infection in Ukraine were revealed: high frequency of circulation of 16 genotypes (25.1%), as well as HPV 53 (14.3%) and 31 (14%); for all age groups characteristic mix of 2 and MORE HPV genotypes, women under 25 years of age have the highest percentage of detection (48% of the total number of HPV-positive results) [18]. The main problem of HPV-associated pathology of the genitals is that the latent period can last from 3 months to several years, a very complex and expensive diagnosis of HPV, to date, there is no specific etiotropic treatment of the virus. After removal or ablation of pathologically altered cervical tissue within healthy tissues, the virus remains in the body, which can lead to a relapse of the disease after some time. Cervical cancer screening in different countries cervical Cancer is a visual form of cancer, the cervix is as accessible as possible to perform any diagnostic and therapeutic procedures. Thus, cervical cancer is one of the few forms 50 malignancies who satisfy all of the requirements for the conduct of population-based screening. Today, cytological examination (PAP test) is the gold standard of cytological screening worldwide. For the first time cytological screening of rshn was conducted in the canadian province of British Columbia (since 1949). Then screening programs began to be implemented in other countries of the world: in the 50s-in the USA, in China, since the early 60s – in Japan, Finland, Sweden, Iceland, since the early 70's-in Germany, Bra-

zil and other countries [6]. Cervical screening is a complex of organizational and medical measures aimed at early detection of precancerous and tumor diseases of this localization and at reducing the mortality of this category of patients. There are 2 screening systems for cervical cancer: organized (systematic) screening and unorganized (sporadic) screening. When organized at the state level cytological screening is determined by the population of women to be screened, its frequency and women are actively invited to participate in the survey. In case of unorganized screening, only women are examined who have applied to medical institutions for any reasons. In recent decades, in our country, the system of strictly organized cytological screening has lost its control levers, and screening has become opportunistic, which has led to a low coverage of the female population with cytological examinations, and, accordingly, an increase in the number of cervical tumor diseases among women. High efficiency of organized cervical screening is noted [19,20,21]. The criteria for evaluating the effectiveness of screening are the reduction of morbidity and, especially, mortality from cervical cancer, as well as changes in the structure of morbidity by increasing the number of early stages of cancer and reducing advanced forms. Analysis of the literature shows that with properly organized, documented and widely conducted screening, its effectiveness is quite high. [22]. Among European countries, a significant decrease in the frequency of LSM (from 15 to 30% every 5 years) was observed in Switzerland (Geneva), Finland, Sweden, Slovenia, New Zealand and other countries with well-organized screening programs. In these countries, the effectiveness of cytological screening is much higher than in those countries where it is carried out spontaneously by private doctors and independent laboratories, for example in France, Macedonia [23,24]. Thus, well-organized screening programs to detect cervical pathology, providing high coverage (70-80%) and including follow-up and treatment of women with abnormal Cytology, reduce the incidence of cervical cancer by more than 80%. Thus, the age of the beginning of screening is a controversial issue until today and should depend on the age associated with the risk of cervical cancer in the population, the characteristics of sexual behavior of women, the middle age of sexual debut. It is necessary to take into account the cost of quality screening, ensuring its availability in different countries.

Preventive HPV vaccination new approaches to fighting cervical cancer through primary prevention have Recently emerged. The first preventive HPV vaccine 6, 11, 16 and 18 was approved by the European medicines Agency (EMA) (Gardasil®, Sanofi Pasteur MSD) in 2006. By October 2007, the vaccine had been licensed in 80 countries in the region. The second, bivalent vaccine (Cervarix®, GlaxoSmithKline Biologicals) received "marketing" approval from EMA in September 2007 and in October 2007 was licensed in 35 countries of the region. This vaccine protects against HPV 16 and 18. These vaccines showed promising results in large randomized placebo-controlled double-blind studies involving adolescent girls and young women [8,10,15,25]. Combined analysis of the results

of the study and subsequent four-year follow-up showed: 94.7 % effectiveness in preventing infection; 96.0 % effectiveness against cervical infection, 53 persistent for at least 6 months; 100 % effectiveness against cervical infection, persistent for at least 12 months; 95.7 % effectiveness against the development of cytological disorders; 100 % protection against the development of all degrees of CIN [12,,15,26,27,28]. Clinical trials of these HPV vaccines have shown that both drugs are well tolerated, with only minor, self-limiting side effects. Since the registration of Quadri – and bivalent vaccines in the period up to 2011, about 120 million doses of the vaccine have been used worldwide. Australia is one of the first countries in the world where since 2007 universal HPV vaccination has been introduced in accordance with the national immunization programme. Vaccination coverage was about 70% of persons (the maximum coverage was 12-13 years old adolescents). A year after the introduction of the vaccine into the national vaccination calendar, the incidence of genital warts decreased by 25% by the end of 2009. - by 59%, by the end of 2010 - by 73%, and in 2011 (4 years after the start of routine vaccination) almost complete disappearance of genital warts was noted. Vaccination against HPV 6, 11; 16; The 18th serotype has been on the U.S. national immunization schedule since 2006. The decrease in genital warts among women younger than 21 years was 19.4%. Female vaccination coverage in the United States is less than 30%. The difference between the level of genital warts reduction in the United States and Australia confirms the fact that the maximum effect of routine vaccination can be achieved only with a high level of vaccination coverage. In 2011, routine vaccinations of 11-12 year old boys with tetravalent vaccine and catch-up vaccination at the age of 13-21 years were recommended in the US. In Australia, it was also proposed to introduce routine vaccination of boys in 2013 [27,28,29,30]. The use of Gardasil® vaccine is allowed to women from 9 years of life to 45 years, men from 9 to 26 years, vaccination Cervarix® is allowed to girls and women from 10 years of life to 25 years. The vaccine is administered intramuscularly (by injection) at a dose of 0.5 ml for all age groups. It is desirable to start vaccination before the beginning of intimate life, i.e. before the first sexual contact [27,31]. Today, many schools hold health classes for high school students, but these lessons are not always conducted by specialists who know where to place psychological and medical accents. At the moment, the screening of LSM is carried out sporadically, that is, only those women who themselves have applied to medical institutions for any reasons are examined [35,36]. In order to reduce the morbidity and mortality rate of women from cervical cancer in Ukraine, a program "screening of cervical pathology for 2005-2010" was developed, which is still in effect [37]. At the same time, it is clear that no order will force a woman to see a gynecologist. The priority direction in medical specialties of our country belongs to family medicine. Family medicine doctor is an important link between the patient and a specialist. The first contact of the patient, as a rule, occurs with the family doctor, to him he presents his complaints and

problems. In turn, the family doctor is obliged to correctly build a conversation, collect anamnesis, pay attention when the patient visited a gynecologist, underwent cytological examination, examined the mammary glands. Therefore, a family doctor in this situation plays an important role both in the organization of detection of pre-tumor pathology of the reproductive tract, and in increasing the education of the population regarding the prevention of cervical cancer [36, 38]. At the stage of primary health care to provide primary and secondary prevention of cervical cancer. Primary prevention includes: 1) identification of risk factors for the development of LSM and their elimination, including through the promotion of healthy lifestyles, health education and counseling of women and men, improving the education of the population in the field of sexual behavior, intimate hygiene; 2) organization of preventive vaccination against HPV [19,38]. 57 Secondary prevention is cervical screening, i.e. examination of women in order to identify and timely treatment of benign and precancerous cervical pathology. In Uzbekistan, all women from the age of 18 or 6 months from the beginning of sexual life are subject to screening

If a malignant disease is suspected, the patient should be sent to an Oncology center or a medical institution that has the right to diagnose and treat the cancer process (University clinics, research institutes, cancer treatment centers). Thus, special training, as well as training of highly qualified specialists of family doctors will help to ensure greater coverage of the female population with cytological screening, as well as to reduce the burden on the work of offices of cervical pathology of medical institutions, which in turn will make it possible to reduce the incidence and mortality of cervical cancer among the female population. And also to increase the detectability of CMM pathology at the stages to be fully cured.

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