

FREQUENCY OF BACKGROUND AND PRECANCER DISEASES CERVIX

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Annotation :

The main principle of screening for cervical cancer is the early diagnosis of neoplastic processes. One of the most important methods of the screening program is a biopsy of the cervix with a histological examination of the tissue. The aim of the work is a morphological study of cervical biopsies taken from 317 women aged 20 to 82 years, the study of the structure of background and precancerous diseases over 3 years (2013-2015). The most common background disease in women of the active reproductive period (from 20 to 40 years) was cervical ectopia (51%). In women of mature and older age (from 30 to 60 years) in the cervix, there is a predominance of dysregenerative and hyperplastic processes such as leukoplakia (84.7%) and polyps (80%). Among precancerous diseases, the maximum frequency of occurrence (71.7%) falls on cervical intraepithelial neoplasia of the 1st degree. Squamous cell carcinoma of the cervix was diagnosed in 1.6% of the cases studied, which is closely associated in frequency of occurrence with cervical intraepithelial neoplasia of the 3rd degree (1.9%).

Keywords: cervix, screening, biopsy, cervical ectopia, intraepithelial neoplasia, cervical cancer

In the modern practice of a pathologist, a significant number of daily routine examinations are diseases of the female reproductive system, in particular, the pathology of the cervix. The increase in the volume of diagnostic material of this profile in 2013-2015. was associated with the active implementation in the Republic of Kazakhstan (RK) of the national screening program "Screening for cervical cancer" within the framework of the State Health Development Program "Kazakhstan" for 2011-2015. [1]. The main goal of the State Program was to improve the health of the nation and increase the average life expectancy of the population, and the fundamental principle of screening examinations was the early detection of cancer. According to the Ministry of Health and Social Development of the Republic of Kazakhstan, cervical cancer in Kazakhstan is detected in 0.04% of cases, while the WHO recommended rate is 0.03%. About 1,500 new cases of



cervical cancer (CC) are registered annually in our country, about 650 women die [2]. At the same time, it should be noted that cervical cancer is one of the potentially preventable diseases, as it is characterized by slow and predominantly local growth, has a long pre-invasive period, and the cervix is an organ accessible for medical examination. Biopsy of the cervix with histological tissue examination is one of the most important methods of the screening program. In a routine morphological study of cervical biopsy specimens, a wide variety of non-tumor pathological processes are diagnosed, which differ not only in etiology, morphology, nosological forms, clinical manifestations, but also in their significance in the development of cervical cancer. Accordingly, timely detection and accurate diagnosis of background and precancerous diseases of the cervix becomes especially important and relevant in the fight against cervical cancer. The purpose of the work is to study the structure of background and precancerous diseases of the cervix based on the results of a morphological study. Research objectives: 1) to conduct a histological examination of cervical biopsy specimens; 2) to determine the morphological criteria for the diagnosis of background and precancerous diseases of the cervix; 3) determine the morphological criteria for diagnosing cervical cancer; 4) to conduct a retrospective analysis of the incidence of background and precancerous diseases of the cervix.

Materials and Methods. The object of the study was cervical biopsy specimens taken from 317 women aged 20 to 82 years who applied for specialized medical care at the women's consultation department of the Central Hospital of Abay (Kazakhstan, Karaganda region) in the period from 2013 to 2015. Tissue fragments were fixed in 10% neutral formalin solution. The histological preparation of the material was carried out according to the generally accepted method with staining of tissue sections with hematoxylin-eosin [3, 4]. Microscopic examination was carried out on the basis of the pathomorphological laboratory of the Department of Surgical Diseases No. 2 and Pathological Anatomy of the Karaganda State Medical University using the Leica hardware computerized complex Microsystems " and Microscope " Leica" DM 1000" followed by digital microphotography at 100x, 200x and 400x magnification. In the morphological assessment of nosological forms of the cervix, the international classification of colposcopic terms adopted at the 14th IFCPC World Congress (July, 2011, Rio de Janeiro, Brazil) was used. According to the results of the completed for 2013-2015. volume of morphological studies a retrospective analysis of diseases of the cervix was carried out with the ranking of the obtained data (Fig. 1, 2).



Results and Discussion. Based on the results of a morphological study, it was found that the most frequently diagnosed pathology of the cervix was cervical ectopia (51%). The maximum frequency of occurrence is noted in the age category from 20 to 40 years (92.5%), which is associated with the intense influence of sex hormones (estrogens) in women of active reproductive age. Polyps of the cervix were diagnosed in 16% of the examined women. Most often, polyps occurred against the background of chronic inflammatory processes in mature and older ages from 30 to 60 years (80%). Chronic cervicitis and the subsequent reparative process are often accompanied by the development of leukoplakia, which were found in 14.5% of cases. The maximum frequency of occurrence of this pathology is noted in the mature and older age category from 30 to 60 years (84.7%). Among precancerous diseases of the cervix, the maximum frequency of occurrence (71.7%) falls on cervical intraepithelial neoplasia of the 1st degree of severity (CIN 1). CIN 2 (moderate dysplasia) and CIN 3 (severe dysplasia) were diagnosed much less frequently - in 16.9 and 11.3% of cases. The most common dysplasias occurred in the older age group from 50 to 59 years (54.7%).

In most cases, dysplasia undergo regression, but their tumor progression to cervical cancer is not excluded. small the difference in frequency of occurrence between CIN 3 (1.9%) and cervical cancer (1.6%) indicates their close morphofunctional relationship and allows us to regard CIN 3 as obligate precancer.

Analysis and monitoring of the incidence of cervical cancer in women in the city of Abay will make it possible to judge the effectiveness of the implementation of the State Screening Program for cervical cancer in a particular medical institution, to identify the positive or negative dynamics of screening, its strengths and weaknesses in organizational aspects, objective and subjective factors affecting the effectiveness of screening.

CONCLUSIONS

1. Among the background diseases, the most common pathology is cervical ectopia of the cervix (51%), especially in women of the active reproductive period from 20 to 40 years.
2. In women of mature and older age (from 30 to 60 years) in the cervix, there is a predominance of dysregenerative and hyperplastic processes such as leukoplakia (84.7%) and polyps (80%).



3. Among precancerous diseases of the cervix, the maximum frequency of occurrence (71.7%) falls on mild cervical intra -epithelial neoplasia (CIN 1). In most cases, with timely treatment, this variant of dysplasia is subject to regression.
4. In the absence of timely diagnosis and treatment, the tumor progression of CIN 1 leads to the risk of developing moderate and severe cervical intra -epithelial neoplasia (CIN 2-3) up to squamous cell carcinoma of the cervix.
5. The most effective method of fighting cervical cancer is screening and timely treatment of underlying and precancerous diseases of the cervix.

LITERATURE

- 1 State development program health care " Salamatty Kazakhstan" on 2011-2015
URL: <http://www.mzsr.gov.kz/> .
- 2 Incidence of cervical cancer in Kazakhstan. URL: <http://www.zdravkrk.kz/>.
- 3 Tusupbekova M. M. Fundamentals of histological technique and methods of histological autopsy , surgical and experimental material: Method . r recommendations. - Karaganda, 2005. - 47 p.

