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Research Article

PREVENTION OF BREAST CANCER: MODERN CONCEPTS ABOUT RISK GROUPS AND OPPORTUNITIES FOR DISEASE PREVENTION

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Dilfuzahon Zakirjanovna Mamarasulova
Doctor of Medical Sciences, Associate Professor, Department of Oncology and Medical Radiology, Andijan State Medical Institute, Uzbekistan

Yuriy Daliyevich Azizov
Doctor of Medical Sciences, Associate Professor, Department of Phthisiology and pulmonology, microbiology, virusology, immunology, Andijan State Medical Institute, Uzbekistan

Yulduzhon Jorabayevna Tashmatova
Republican Specialized Scientific-Practical Medical Center of Oncology and Radiology, Andijan Regional Branch, Uzbekistan

Gulkhayoxon Bahodirjon qizi Abdullaxonova
5th year student, Andijan State Medical Institute, Uzbekistan

ABSTRACT

In this article, epidemiological data on the programs of breast cancer and screening programs are presented, as well as the role of mammographic screening in the early diagnosis of precancerous and cancerous pathologies of breast diseases are described in detail.

KEYWORDS

Breast cancer, screening, mammography

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INTRODUCTION

In most countries of the world, there is an increase in incidence and mortality from breast cancer [8, 13, 9]. Statistical data show that the incidence of breast cancer in the American and European economically developed countries is high: in the US - from 103.9 to 109.6 per 100 thousand female population (000%) in the state of California and San Francisco, in European countries-from 88.1% in Belgium to 97.0% in Sweden. At the beginning of the new millennium, the highest incidence was recorded in Uruguay, where the standardized rate was 114,9% 00. The low incidence of breast cancer was recorded in Cuba in America (28.9% 000) [10]. In Asia, the highest standardized incidence rates are shown in Israel (98.5% 000). In China, the figures range from 9,1 to 36,2% 000. One of the lowest standardized indicators of morbidity is in Korea (12,7% 000). Relatively low rates are typical for African countries, while the average standardized rate for the continent is 21,3% 000 [13]. Low rates on the African continent are probably the result of low life expectancy of the population and unreliable medical statistics. Federation for the composition of cancer in the female population of Russia, breast cancer ranks first (20,0%) [14].

THE MAIN PART

The reasons for the heterogeneity of the spread and development of breast cancer are still not completely clear. Numerous experimental and epidemiological studies have identified a number of factors that increase the risk of this disease [42, 50].

Zaridze D. G. According to [2] approximately 30-35% of all human tumors are caused by smoking, malnutrition is responsible for 35-40%, occupation factors - 4-5%, ionizing radiation - 4-5%, ultraviolet radiation - 2-3%, alcohol consumption - 2-3% and environmental pollution - 1-2% of all human malignant tumors. Nelyubina L. A. [7] distinguishes 4 group of the main factors, from which in the first place are assigned hormonal factors, environmental influences and individual characteristics of the organism. Ivanov V. G. [4] the main means is the characteristics of the reproductive system activity of the group of factors, endocrine and metabolic changes arising as a result of shared and previous diseases, genetic and exogenous factors.

The incidence and mortality rates from breast cancer are largely dependent on Lifestyle [15]. One of the main components of a healthy lifestyle is proper and balanced nutrition, which determines the duration and quality of a person's life [5, 1].

The early diagnosis of breast cancer, as well as the effectiveness of screening mammography to reduce mortality from the disease, has been proven by many clinical studies [11, 9].

In large cities, the population of industrially developed regions suffers more from breast cancer than the rural population. Perhaps one of

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the reasons for this is the increase in the consumption of fats and surrogate Food [13].

Smoking is one of the reasons for the development of malignant tumors. The IARC working group, which studies the chemical composition of tobacco smoke, concluded that tobacco smoking is a carcinogenic for humans [4, 2]. Spontaneous breast cancer is more common in heavy smokers [8, 6]. It was found that smoking has a significant effect on reproductive function. Under its influence, the duration of pregnancy and the time of conception are measured. Smoking affects not only the hormonal balance of the female body, but also the lactation function of the mammary gland.

One of the problems with mammography of SCRI remains its sensitivity due to mammographic density. The average sensitivity of SCRI to mammography is approximately 75%, with an average mammographic density reduced to 50%. In severe mammographic density, the sensitivity of the mammography of the SCRI in young women with hereditary breast cancer, for example, is reduced 33% [6, 14, 10].

Mammography density not only complicates the early diagnosis of breast cancer, but also is an independent risk factor for the development of breast cancer [4, 7].

From a clinical point of view, mammographic density refers to fibrous and proliferating breast tissue. Obviously, an increase in one of the components, in particular, proliferative changes, leads to an increase in mammographic density. The role of mammographic density, including its impact on the risk of breast cancer, has been extensively studied.

For the first time, the link between mammographic density and the risk of developing breast cancer was shown by Wolf [13].In a study to control the case, Wolfe et al .219 determined mammographic density in 160 breast cancer cases and 160 control cases. In the control group, more than 25% of mammographic densities were detected in two-thirds (63%) of women under the age of 53 years and in one-third (53%) of women over the age of 34 years. In another study, the incidence of mammographic density was 56% in women over 50 years of age and 11,8% [10].

The quantitative classification of mammographic density was developed in the mid-1990s [4, 8, 13]. Depending on the relative risk of developing breast cancer, 6 groups of mammographic density were determined: 1) 0% - <10%, RR=1.00; 2) 10% - <25%, RR=1.78; 3) 25% - <50%, RR=3.92; 5) 50% - <75%, RR=5.34; 6) > 75%, RR=5.05 [15].

Mammographic density is constant, changes under the influence of internal and external factors. Among the internal, natural causes, it is necessary to distinguish menopause. External, artificial factors include hormone replacement therapy and the use of antiestrogens.

The effect of menopause on mammographic density was observed in a study based on the national study on breast cancer screening in Canada. Observation of 202 pairs of premenopausal and postmenopausal women over 5 years showed an annual decrease in

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mammographic density by 1% after menopause [14, 9].

From a technical point of view, the mammographic density is the ratio of the radiographic dense area of the breast to the entire breast area. In recent publications on mammographic density, a special computer program distributed by the research team of the Campbell Family Institute in Toronto, Canada, can be used to assign patients to different groups.

After the purchase of mobile mammography in Uzbekistan, Andijan, the following results of the mammography examination were expected. Andijan region is 10% of the total population of the Republic of Uzbekistan and is the most densely populated region. Over the past 5 years occupy the leading place in breast cancer in the Republic of Uzbekistan, and Andijan region is no less. Due to the mentality of the population of the Andijan region, advanced forms of breast cancer, although this organ is external and has a good visual field for examination. 2017 President of the Republic Of Uzbekistan Sh.M. Mirziyaev issued a law on the implementation of preventive measures to identify early forms of breast cancer. To this end, mobile mammographs for the screening of the mammary gland for the detection of precancerous and cancerous pathologies in all regions were purchased. More than 7,700 healthy women from different regions of Andijan region were examined during 2020-2021 years.

CONCLUSION

Breast cancer is one of the central problems affecting the most labor-intensive and socially active part of the female population of the Republic of Uzbekistan, which determines the relevance of carrying out research on the spread of breast cancer, taking into account socio-demographic, environmental and hygienic characteristics. The absence of the state program for the examination of breast cancer in the Republic of Uzbekistan and the limitation of health care costs determines the need for scientific research that determines the factors, which affects the increase in oncological risk and form groups. Conducting prophylactic measures in risk groups allows early diagnosis and timely treatment of breast diseases and, as a result, reduces death from breast cancer.

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