On Ways to Improve the Efficiency of Oncological Care for Breast Cancer Patients in the Andijan Region and the City of Andijan

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Abstract: The study to identify risk factors for breast cancer included 1116 questionnaires of healthy women, 11 patients with breast cancer and breast dysplasia, living in the Andijan region and the city of Andijan. Using the filling - an electronic form of questionnaires from paper, statistical processing of data was carried out to identify risk factors.

The obtained factors formed the basis for constructing a prognostic model for assessing the individual risk of developing breast cancer. The constructed "Prognostic table" consists of 44 questions and 117 answers to them, each answer corresponds to a diagnostic coefficient (DC) characterizing statistically significant risk factors for breast cancer.

Keywords: mammographic studies, ultrasound method, medical personnel, breast cancer, galactocele, fibroadenoma, lipoma.

Introduction

International Agency for Research on Cancer (IARC, Lyon) breast cancer (BC) is an "ideal" tumor for population screening. This is the most common tumor in women, especially those over 50. Of the 10 million new cases of malignant tumors of various organs detected in the world, 10% are in the mammary gland [1].

Over the past decades, there has been an increase in the incidence of breast cancer (BC) in the Republic of Uzbekistan [5, 10]. One of the main reasons for the insufficient effectiveness of therapeutic measures is the unsatisfactory state of early diagnosis, untimely differential diagnosis of nodular formations of the gland, and early forms of cancer. Along with palpation and mammographic studies, the ultrasound method is widely used to diagnose

breast cancer. Due to the absence of radiation exposure, it can be used repeatedly, in any age group, during pregnancy and lactation. Echographic screening helps to identify not only the pathology of various organs and systems but also to carry out differential diagnostics of malignant neoplasms at subclinical stages, which makes it possible to choose an adequate volume of surgical intervention [2–4, 10–12].

The most common is a clinical (physical) breast examination (CBE - Clinical Breast Examination) by medical personnel. According to Canadian researchers, the CBE method can have high specificity (95–99%) and sensitivity in the range of 47–80%. Based on 2740 studies, Ciatto et al. Found that the sensitivity of CBE varies depending on the stage of the disease: 48% - in situ cancer, 70% - stage I, 90% - stage II, 89% - stage III, 93% - stage IV breast cancer. is 77% in the age group 20-29 years old, 58% - 30-39 years old, 75% - 40-49 years old, 84% - 50-59 years old, 90% - 60-69 years old, 94% - over 69 years old (Ciattoetal., 1991) The sensitivity of clinical examination of the mammary glands in the early stages and at a young age is reduced [2,3].

According to the Ministry of Health of Uzbekistan, the most common type of cancer in the republic is breast cancer. This type of cancer is detected in 9.1 cases per 100 thousand populations. According to experts, the hereditary factor is important in the development of breast cancer in women, precisely on the maternal side. It is transmitted in 45-75% of cases if there are mutations in the BRCA 1-2 genes [6, 7, 8, 9].

Timely individual prediction and formation of risk groups is the first stage of population screening of the population in terms of optimizing measures for the early diagnosis of breast cancer. When carrying out preventive measures, the main difficulty is the need to quickly analyze the results of a survey of a large number of patients and obtain a conclusion about the probable diagnosis. One of the solutions to the issues in terms of early diagnosis is the formation of a high-risk group based on the identification of a complex of factors influencing the development of the disease using information systems.

The effectiveness of the proposed Program largely depends on the material support of the entire regional healthcare system, the technologies used and approaches to managing the oncological situation. The solution of these most important tasks presupposes the effective coordination of the efforts of the Andijan region of the oncological dispensary and the regional health care facilities, as well as the interest and support of the administrative bodies of the region and the country.

Materials and Methods

This study is based on the personal data of the applicants and the conclusions of the ultrasound examination, which was carried out in the Andijan branch of the Republican Scientific and Practical Medical Center of Oncology and Radiology. Ultrasound examinations were carried out by highly qualified specialists in ultrasound diagnostics, as well as mammologists of this center. The examination was carried out among healthy women of the

city of Andijan and Andijan region from 17-49 ages. The contingent was convened for examinations through advertising through the media. The constructed "Prognostic table" consists of 44 questions and 117 answers to them, each answer corresponds to a diagnostic coefficient (DC), which characterizes statistically significant risk factors for breast cancer.

After collecting questionnaires and a clinical examination by a mammologist, the patient was sent for ultrasound examination (US) of the mammary glands and areas of regional lymph drainage.

results and Discussions

1116 women from the city of Andijan and Andijan region were examined. The survey data showed the following results, which are reflected in (table 1).

Table 1

Breast ultrasound findings

№	Diagnosis	Examined
1	Healthy 535 (49.7%)	535 (49,7%)
2	Fibrocystic breast disease 163 (14.6%)	163(14,6%)
3	Fibrous mastopathy 140 (12.5%)	140(12,5%)
4	Nodular mastopathy 64 (5.7%)	64(5,7%)
5	Lipoma 12 (1.07%)	12(1,07%)
6	Adenosis 8 (0.71%)	8(0,71%)
7	Diffuse mastopathy 30 (2.68%)	30(2,68%)
8	Breast cyst 95 (8.51%)	95(8,51%)
9	Lymphadenopathy 26 (2.32%)	26(2,32%)
10	Suspected breast neoplasm 11 (0.98%)	11(0,98%)
11	Minz disease 13 (1.16%)	13(1,16%)
12	Fibroadenoma 13 (1.16%)	13(1,16%)
13	Galactocele 2 (0.17%)	2(0,17%)
14	Fibro-nodular matsopathy 3 (0.26%)	3(0,26%)
15	Atheroma 1 (0.089%)	1(0.089%)
	Total	1116 (100%)

The findings of the ultrasound examination of the surveyed women gave the following: half of the surveyed women were healthy, 535 (49.7%), with fibrocystic mastopathy 163 (14.6%), fibrous mastopathy 140 (125%), nodular mastopathy 64 (5.7%)), diffuse mastopathy 30 (2.68%), cystic lesions of the mammary gland 95 (8.51%), fibroadenoma 13 (1.16%), Minz disease 13 (1.16%) and suspected malignancy 11 (0.98%) ... Other pathologies such as galactocele, atheroma and lipoma were found in 2 (0.26%) and 1 (0.089%).

As the data show, almost 50% of the surveyed have breast pathology. What can lay the foundation for the development of a malignant neoplasm? If there are 2 cases per 1000 in the world, then in our case 11 (0.98%) have a suspicion of cancer, which was confirmed by aspiration biopsy and cytological examination. The number of precancerous pathologies such as Minz disease (intraoral formations), nodal forms of mastopathy among the population of the Fergana Valley is high, which predicts an increase in malignant breast cancer pathology. This can be attributed to the population density compared to other regions of the Republic of Uzbekistan.

Anatomical changes in various forms of mastopathy are varied, but fibrous cords are required, intertwining with each other and passing without clear boundaries into the surrounding tissue. Common to the three forms is the proliferation of connective tissue, atrophic lobules, small cysts with a homogeneous epithelium. Areas of nodular mastopathy did not look like nodular formations. They were distinguished by a more or less even contour, homogeneous echo structure, and no deformation of tissues around the nodal zone was observed. With CDC, the vessels had a linear orientation, there were no signs of increased vascular pattern. With high-quality elastography, the cartogram of tumor stiffness had a green and red-green palette similar to the surrounding tissues [3].

The cysts had a picture of an anechoic homogeneous fluid formation of a round or ovoid shape, with a clear even contour, no reflection from the internal contents, lateral acoustic shadows, and dorsal amplification of the signal. No blood flow was recorded.

For the interpretation of the data obtained during the ultrasound of the mammary glands, we adhere to the gradation according to the BI-RADS system. The planned tactics in each specific case can vary from follow-up with an examination interval of 1 year (in the absence of a pathological process) - category 1 to morphological verification of the pathological process to determine the histological and immunohistological features of the tumor - category 5 is established with obvious signs of cancer [3]

Category 1 is established in patients in the absence of a pathological process. Control examination is carried out once a year.

Category 2 is established when benign formations are detected (simple cysts, lipomas, atheromas, typical fibroadenomas, stable oleogranulomas, breast implants without signs of damage and transposition), a control examination is performed every 6-12 months.

Category 3 is established with benign changes with a probability of cancer of no more

than 2% (newly diagnosed fibroadenomas without increased intra- and peritumoral blood flow, oleogranulomas, zones of nodular hyperplasia of the parenchyma without the presence of calcifications, edematous-infiltrative forms of mastitis, breast abscesses, cysts with signs of inflammation). Control examination is carried out after a course of conservative treatment in 3 months. If 3 months after the course of therapy, negative dynamics is noted, then the case is regarded as category 4, if positive dynamics is noted, the case is regarded as category 2 [3].

Category 4 is established when changes in the mammary glands are detected suspicious of a malignant process with a probability of 3 to 94% (fibroadenomas larger than 3 cm (leaf-shaped fibroadenomas), fibroadenomas of any size with an increase in size by more than 5 mm during follow-up for 6 months, fibroadenomas with increased blood flow, with an uneven contour, indistinct visualization of the posterior contour or the presence of calcifications; atypical cysts with the presence of intracystic solid formations, intraductal papillomas, nodular formations without a clear echographic picture, edematous-infiltrative and other forms of mastitis without positive dynamics after treatment, zones of nodular hyperplasia with the presence of calcifications When this pathology is detected, morphological verification of the process is required using percutaneous puncture biopsy or trepan biopsy [3].

Category 5 is established with obvious signs of breast cancer.

Taking into account the above gradations according to the BI-RADS system, ultrasound doctors must indicate the category of the revealed pathology, taking into account all ultrasound criteria using the B-mode, CDC, EDC, elastography. Clinicians, guided by the received ultrasound report, planned their treatment tactics [3].

Out of 1116 women B-0 500 with age-related changes, B-1 35 women with fatty involutions, 98 B-2 with echo signs of cysts and fibroadenomas. B3 - in 10 patients with atypical cysts, B-4 - intraductal papilloma in 13 women, in 11 women according to the Bi-rads B-4BC and B5 system. In particular, 60 women out of 202 (29.7%) were assigned category 2 and were recommended to return for examination after 6 months. Category 3 was established in 65 patients out of 202 (32.2%), a course of conservative therapy was prescribed, followed by an appearance for examination after 3 months, 6 women out of 202 (3%) were assigned to category 4. And 8 patients out of 202 (4%) 5 category according to the BI-RADS system.

All observations of focal pathology, 4.5 categories according to the BI-RADS system, had morphological verification in the form of a cytological conclusion of the results of fine-needle puncture. The diagnosis of breast cancer was confirmed morphologically after surgical treatment based on histological findings.

At the same time, in one woman out of 8 (12.5%), the ultrasound diagnosis of breast cancer was not cytologically established, however, after morphological examination of the postoperative material, the diagnosis of breast cancer was confirmed. And in one case out of 8 (12.5%) with ultrasound diagnosis of fibroadenoma, also after surgery, cytologically and histologically, a diagnosis of fibroadenoma with malignancy was established.

Conclusions

Thus, complex ultrasound, including the elastography mode, as an additional highly informative diagnostic method, is characterized by high information content in the diagnosis of breast cancer. The sensitivity of the method was 97.6%, specificity 86%, accuracy 96.3%. The use of the BI-RADS system will help to systematize the tactics of dynamic examination and management of patients with various diseases of the mammary glands.

Acknowledgment

To optimize oncological care for the population of the Andijan region in terms of early diagnosis of breast cancer, it is necessary:

1. To develop and implement on the territory of Andijan region "The procedure for the provision of medical care for cancer";

2. To organize "Monitoring of the implementation of measures aimed at improving the organization of cancer care for the population of the Andijan region";

3. Prepare and implement a "comprehensive plan to improve the organization of cancer care";

4. Conduct health education of the female population from the age of 25 age on issues of precancerous and tumor pathology of the breast;

5. Conduct a continuous survey of the population, starting from reproductive age and older, using special questionnaires to search for cancer risk factors;

6. To conduct an active search for risk factors in patients of reproductive age and older who have consulted a doctor about various causes of health problems;

7. To identify risk factors for breast cancer in dispensary groups of women no later than reproductive age;

8. To restore the system of medical examination of the female population with benign diseases of the mammary glands.

To achieve this goal, it is necessary to solve the following

Tasks:

1. The creation in the administrative territories of the region of primary oncology rooms (with the number of dispensary groups of cancer patients up to 500) and primary oncology departments at polyclinics of medical and prophylactic institutions (with the number of dispensary groups of cancer patients being more than 500 people);

1. Organization of the work of mammalogical offices or specialized mammalogical appointments;

2. Monitoring of patients with suspected breast cancer and patients with newly diagnosed breast cancer;

3. Identification of areas of increased risk of developing breast cancer and with the highest mortality rates from this pathology;

4. Formation of groups of increased risk of breast cancer during clinical examination of women with breast pathology based on the latest scientific ideas regarding the "precancerous potential" of various chronic diseases and processes;

5. Use of examination rooms of polyclinics for primary screening and registration of persons with breast pathology, subject to in-depth examination, treatment, and follow-up;

6. Creation of a unified information system (register) between the polyclinics of medical institutions in the city of Andijan and Andijan region to study the objective situation of breast cancer incidence and form a data bank on persons with tumor and precancerous diseases;

7. Observation of persons participating in the screening and clinical examination program for the detection of breast diseases, with a frequency of at least 1 time in 2 years, and in risk groups - 2 times a year;

8 . Systematic examination and observation of treated breast cancer patients to maximize early detection of relapse, metastases, and medical and social rehabilitation, take measures aimed at preventing tumor growth;

9. Development and implementation of schemes and methods of timely diagnosis and treatment of malignant neoplasms and precancerous diseases of the breast;

10. Organization of diagnostics of hereditary forms of breast cancer, creation of a registry of familial breast cancer to carry out a set of measures aimed at the prevention and early diagnosis of breast cancer in groups of high oncological risk, dispensary observation of risk groups - relatives with hereditary forms of cancer.

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