

SCREENING AND REGISTERING PROGRAMS FOR BREAST CANCER IN TURKEY AND IN THE WORLD

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Breast cancer is the second most common type of cancer for all persons, following lung cancer which is the most common. It is the most commonly occurring cancer in women in both developed and developing countries. It is one of the most common causes of death in women with cancer. In the study conducted by the World Health Organization (WHO) in 1990, it was found that there were 769,000 new cases of breast cancer and 314,000 cases of deaths due to breast cancer. Again, in an assessment carried out in 2002 by the International Agency on Cancer for Research (IARC), an agency affiliated with the WHO, it was calculated that there were 1,152,000 new cases of breast cancer and that there were 411,000 cases of death caused by breast cancer. It can be seen that within this period of time, the rates of cancer frequency and mortality increased by 25%. The rate of survival of patients with breast cancer in all stages in a period of 5 years is reported to be 73% in developed countries, whereas this rate of survival is 53% in developing countries. This significant difference in percentages can be explained by the possible early diagnosis due to screening mammography and better treatment opportunities in developed countries. The mortality rate for breast cancer is 30% (190,000 deaths/636,000 cases) in developed countries and 43% (221,000 deaths/514,000 cases) in developing countries.

The stage of cancer at diagnosis

For early diagnosis of breast cancer it is necessary that women have the awareness of breast cancer (training) and that self-examination, clinical examination and mammography screening are musts. It is not possible to separate these from each other. Teaching women how to self-examine their breasts and to use this as the only screening method was researched in the St. Petersburg (Russia) and Shanghai (China) studies. In the St. Petersburg study, 60,221 women between the ages of 40-64 were taught how to examine their own breast and were requested to conduct this self-examination each month. 60,089 women of the same age group were taken as a control group. After 13 years, it was found that 157 of the subjects in the study and 164

women in the control group had died of breast cancer. In the Shanghai study, 133,375 women were included in the study and 133,675 were in the control group. All women were aged between 30-69 years of age. At the end of a 10 year monitoring activity, 135 women who had been taught self-examination and 131 women who had not been taught died of breast cancer. As it can be seen, self-examination did not reduce the rate of mortality. The importance of clinical examination of breasts for early diagnosis is to sustain awareness.

The most important screening method for reducing the mortality rate of breast cancer is mammography. The first study concerning the use of mammography as a method of screening for the early diagnosis of breast cancer was conducted in 1963 by the New York Health Insurance Plan (HIP). In this study, the bilateral mammography and the clinical examination group were compared with the control group. The participation in the screening was 67% and an 18 year follow up was conducted. When all the age groups were taken into consideration, the mortality rate was reduced by 20%. If all the studies conducted and published for this field are taken into consideration, it can be seen that the mortality rate was reduced by 35%. The highest rate of reduction was seen in women who were subjected to mammography and were over the age of 50.

Table 1. Screening by Mammography: Results of randomised clinical studies

M: Mammography, KMM: Clinical Examination, X: Control Group, NBSS: Canada National Breast Screening Study

Study	Year	Age	Comparison	Interval	Particip- ation	Film	Number	Follow up /year
HIP	1963	40-64	M+KMM - X	12 months	%67	2 way	60.995	18
Malmö	1976	43-70	M - X	18-24 months	%75	1-2 way	60.076	16
Two-County	1977	40-74	M - X	24 months	%89	1	133.065	20
Edinburgh	1978	45-64	M+KMM - X	24 months	%61	2	44.268	13
Stockholm	1981	40-64	M - X	28 months	%81	1	60.117	15
NBSS-1	1980	40-69	M+KMM+KKM KMM+KKM	12 months	%100	2	50.430	13
NBSS-2	1980	50-59	M+KMM+KKM KMM+KKM	12 months	%100	2	39.405	13
Gothenburg	1982	39-59	M - X	18 months	%84	1-2 way	51.611	14

When the results of the Indian National Institute of Cancer are examined, 76% of the patients were found to be in stage III and IV during the diagnosis stage. In the West African country of Ghana with a population of 20 million, almost all of the patients were diagnosed at an advanced stage during their examinations. In the screening of 4,000 women conducted in the Ukraine with the support of the USA, there was found to be a reduction of approximately 50% in local progressed breast cancer.

In some countries, breast cancer is not seen as an important problem due to high poverty.

Cause: Resources are so scarce and other expectations are so high that establishing breast health programs do not have very much impact.

With this aim, in order to establish breast health manuals for countries that have limited economic status, the Second World Summit of “The Breast Health Global Initiative (BHGI)” met in Washington on 4-9 January 2005. The task description of The Breast Health Global Initiative is to attempt to identify the codes based on evidence appropriate to the economic and cultural structure of the developing countries in order to improve breast health.

The meeting was attended by 35 experts from 17 countries, including Turkey and panels were conducted on four different topics (Early Diagnosis and Approach, Diagnosis and Pathology, Treatment and Economical Use of Resources, Public Health Systems and Public Health Policies). The findings were published in the January-February 2006 issue of The Breast Journal. The organizations which have contributed and provided support were:

U.S Government Agencies;

Centres for Disease Control and Prevention (CDC)

National Cancer Institute, Office International Affairs

World Health Organization (WHO) affiliations; Cancer Control Programme, Health System Policies and Operations and Alliance for Health Policy and Systems Research.

In addition, the following organizations attended the meeting and provided their support:

Alliance for Health Policy and Systems Research (AHPSR/WHO)

American Society for Breast Disease (ASBD)

International Atomic Energy Agency (IAEA) of the United Nations

International Network for Cancer Treatment and Research (INCTR)

International Society of Breast Pathology (ISBP)

International Society of Nurses in Cancer Care (ISNCC)

International Union Against Cancer (UICC)

Middle East Cancer Consortium (MECC)

Pan American Health Organization (PAHO/WHO)

World Society for Breast Health (WSBH).

Objectives:

1. “To identify the best practices in low-income earning countries”

2. To assist the following organizations to work together:

✓ Clinicians & State Health Departments

✓ Patient Associations & Private organizations and scientific associations

✓ Public Health Researchers

CONCLUSIONS

- Resources which can be allocated to breast health and responsible users should be identified in countries with limited income.
- Implementing definite strategies which abide by the regulations will ensure improvement in breast health.
- The most effective method in reducing the breast cancer mortality rate is early diagnosis.
- Education of the public and health professionals will significantly improve the results.
- International health organizations are organizing themselves to be able to further support countries with limited incomes.

REQUESTS BY THE STATE HEALTH AUTHORITIES:

- Development of cancer control programs
- Strengthening of international relations
- Identification of the regulations for early diagnosis
- Supporting of effective public health programs and research to prevent and control cancer
- Supporting of low-cost research projects which can be conducted and are sustainable

BREAST CANCER IN TURKEY

Frequency

According to current national data, the rate of frequency can be given as 20/100,000 in the eastern regions and 40-50/100,000 in the western regions. The reason for the difference in the frequency among the regions can be explained by the similarity of the lifestyle of those in the western regions to the European lifestyle. One out of every 4 female cancer patients is breast cancer, which is the most common type of death caused by cancer.

The stage of cancer at diagnosis

It can be said that the stage during diagnosis in the Eastern Anatolian region is mostly local advanced and metastasised breast cancer. The findings of a study conducted by the Dicle University shows that the percentage of stage I and II breast cancer is 21% and the percentage of stage III and IV breast cancer is 79%. According to the data from the Istanbul Faculty of Medicine, Breast Unit, the percentage of breast cancer at stage I and II is 83% and this data is similar to the data for western countries. In Antalya and İzmir, the early diagnosis stage of breast cancer is over 50%. This regional difference could be due to education, economic reasons, the higher opportunities present for examination and mammography, the presence of menopause clinics and priorities held by the public. In Turkey there are over 5,000 specialist general surgeons, approximately 250 medical oncologists and 400 radiation oncologists.

The number of medical oncologist is specifically and significantly low. The spread of these physicians nationwide is quiet heterogeneous.

Surgical treatment conducted

Mastectomy is a preferred method of treatment in Turkey in general. The percentage of breast preservation surgery conducted at the Dicle University is 5%, while this percentage is 60% at the Istanbul Faculty of Medicine. At the Ege University this rate is 30% and approximately 20% at the Akdeniz University.

Screening for breast cancer and registry projects

The Department of Cancer Control of the Ministry of Health Department of the Republic of Turkey and the National Cancer Advisory Board, together with the affiliated Board of Early Diagnosis and Screening of Breast Cancer are conducting studies for the early diagnosis, registry and effective treatment of breast cancer nationwide. This Board has prepared a protocol together with the Coordination Board for Breast Health Associations, the Turkish Pathology Association, Nurses Associations and the Provincial Directorates of Health for the establishment and activities of the Centres for Breast Cancer. The Department of Cancer Control of the Ministry of Health Department of the Republic of Turkey has begun work to establish these centres in 41 provinces with the passing of a regulation dated 01.07.2005. With the passing of a law last year, a free service of taking mammograms of women who are over the age of 50 whose economic situation is not good and who have no social security is being provided. A screening program which is based on scientific data will be implemented in these centres and they will be conducted appropriate to the economic, cultural, social and religious characteristics. This screening program aims to make early diagnosis of breast cancer and to reduce the mortality rate of women with breast cancer who are over the age of 50 by 30%. With this aim, the breast cancer screening and registration project began to be implemented in Istanbul. In addition to the Centres for Breast Health within the Medical Faculties in Istanbul, breast health centres were established in 12 State Training and Research Hospitals. The surgeons, radiologists, pathologists, nurses and technicians in these centres will undertake the standard training program that has been developed. It is foreseen that the 450,000 women over the age of 50 living in Istanbul will be screened and the treatment and monitoring of these women with breast cancer be conducted.

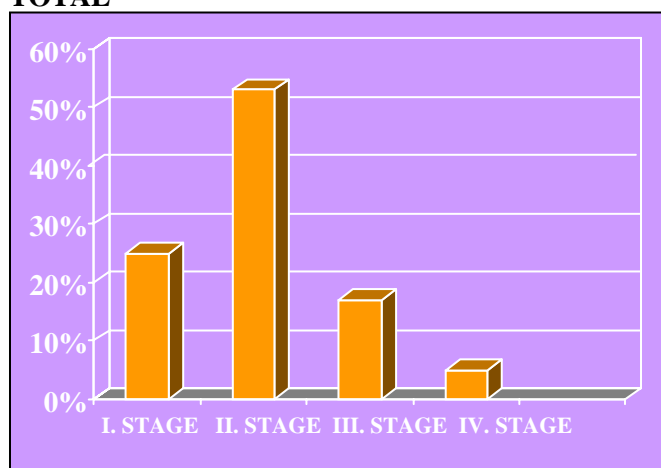
The Registry Program of the Coordination Board for Breast Health Associations (MDKK)

The MDKK was established in 2001 as a result of the collaboration of the breast health associations currently active in Istanbul, İzmir, Ankara and Bursa. Soon after, the breast health associations of Aydın, Kocaeli and Diyarbakır also joined this Board. The goal of the MDKK, which meets every three months, is to transform into a scientific federation by

completing its nationwide structural establishment. By doing so, the Department of Cancer Control of the Ministry of Health Department of the Republic of Turkey and the National Cancer Advisory Board, together with the affiliated Board of Early Diagnosis and Screening of Breast Cancer will assist in screening of breast cancer and attempt to provide solutions and practices for the early diagnosis and modern treatment of breast cancer. The database that has been established by the online breast cancer registration program (<http://www.mdkk.org/memekanseri>) developed by the MDDK aims to establish a patient monitoring and data access program with the detailed data that will be collected by creating a single data pool of cases which have been diagnosed and treated for breast cancer. As of March 2007, the number of patients with breast cancer registered on the database has surpassed 9,500. 99% percent of the cases make up for the patients of the 6 centres.

The table below shows the centers in which registering takes place

Ege Uni., Faculty of Medicine	4072
Istanbul Uni., Faculty of Medicine	3233
MAMER (Bursa)	1308
Ministry of Health, Ankara Dışkapı Hospital	441
Dr. Vahit Özmen (K)	261
Centre for Breast Diseases and Endocrinal Surgery	116
Aydın Breast Diseases Association	64
Kocaeli Uni., Faculty of Medicine, Dept. of General Surgery	8
South-eastern Anatolian Breast Diseases Association	2
Istanbul Uni., Institute of Oncology	2
Acıbadem Health Group	1
Merkezefendi State Hospital, Manisa	1
TOTAL	9509



Of these patients, 99% are female and 1% are male. The patients who are under the age of 40 is 17% and 55% of the patients are over the age of 50.

The percentage of patients with advanced and metastasised breast cancer at the time of the diagnosis is approximately 23%.

For 77% of the patients surgical treatment includes mastectomy and for 23% of the patients, breast preserving surgery was conducted. In the patients where receptors could be assessed, it was found that 66% of the patients were oestrogen receptor positive and 44% were progesterone receptor positive. 63% of the patients with breast cancer were menopausal. 90% of the patients were administered tamoxifen and 10% were administered aromatase inhibitors as hormone therapy.

In conclusion, breast cancer is the most frequently occurring female cancer in Turkey and there is a need for implementing a modern and continuous screening and registration program. There are very important difficulties in implementing such projects in Turkey (bureaucracy, authority, difficulties in working cooperatively, ignorance...) However, the Department of Cancer Control is working in cooperation with universities, the National Cancer Advisory Board, scientific and social associations to identify and implement a national cancer policy. To implement these programs, which are a criteria for development and a necessity for Turkish women, requires the issues to be taken as a national, rather than an individual issue by fighting the difficulties that are come across patiently and by taking a strong stance together with the support of all related departments.

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